



**NOTICE OF MEETING**

There will be a meeting of the  
**PROGRAM DEVELOPMENT COMMITTEE (PDC)**  
**Monday April 16, 2018 at 9:00am-11:00am**  
**In Room 209 Assumption Hall (2nd Floor)**

**AGENDA**

**Formal Business**

- 1 Approval of Agenda**
- 2 Minutes of Meeting of March 19, 2018**
- 3 Business Arising from the Minutes**

**Item for Discussion/Approval**

- 4 Outstanding Business**
  - 4.1 Indigenous Perspective in PDC Forms** PDC180416-4.1  
**K. Pasquach**

**Item for Information**

- 4.2 Biological Sciences – Response to PDC UPR Report and Summary and Analysis** PDC180416-4.2  
**E. Kustra**

**Items for Approval**

- 5 Reports/New Business**
  - \*5.1 Computer Science – Minor Program Changes (Form C)** PDC180416-5.1  
**I. Ahmad**
  - \*5.2 Honours Modern Languages – Minor Program Changes (Form C)** PDC180416-5.2  
**A. Rossini**
  - \*5.3 Aeronautics – Minor Program Changes (Form C)** PDC180416-5.3  
**T. Bacon**
  - \*5.4 Concurrent Political Science BA (General)/Bachelor of Education (Form C)** PDC180416-5.4  
**C. Collier/G. Salinitri**

**Items for Information**

- \*5.5. WGST – Summary of Minor Course and Calendar Changes (Form E)** PDC180416-5.5  
**T Bolton Bacon**
- \*5.6 Bachelor of Social Work and Disability Studies – Learning Outcomes** PDC180416-5.6  
**D. Jozefowicz/W. Park**
- \*5.7 Disability Studies and Psychology – Program Learning Outcomes** PDC180416-5.7  
**D. Jozefowicz/S. Towson**

<b>*5.8 Disability Studies – Program Learning Outcomes</b>	PDC180416-5.8 <b>S. Towson/G. Salinitri</b>
<b>*5.9 Environmental Science (with Thesis) Program Learning Outcomes</b>	PDC180416-5.9 <b>I. Samson</b>
<b>*5.10 Environmental Science (without Thesis) Program Learning Outcomes</b>	PDC180416-5.10 <b>I. Samson</b>
<b>*5.11 Earth and Environmental Science – Course Learning Outcomes</b>	PDC180416-5.11 <b>I. Samson</b>
<b>*5.12 MSc in Earth Sciences – Program Learning Outcomes</b>	PDC180416-5.12 <b>I. Samson</b>
<b>*5.13 PhD in Earth Sciences – Program Learning Outcomes</b>	PDC180416-5.13 <b>I. Samson</b>
<b>*5.14 Master of Computer Science – Program Learning Outcomes</b>	PDC180416-5.14 <b>S. Goodwin</b>
<b>*5.15 PhD Computer Science – Program Learning Outcomes</b>	PDC180416-5.15 <b>S. Goodwin</b>
<b>*5.16 Languages, Literatures and Culture –Course Learning Outcomes</b>	PDC180416-5.16 <b>P. Fagan</b>
<b>*5.17 Special Topics in Psychology (46-606) – Course Learning Outcome</b>	PDC180416-5.17 <b>L. Buchanan</b>

**6 Question Period/Other Business**

**7 Adjournment**

Please carefully review the 'starred' (\*) agenda items. As per the June 3, 2004 Senate meeting, 'starred' items will not be discussed during a scheduled meeting unless a member specifically requests that a 'starred' agenda item be 'unstarred', and therefore open for discussion/debate. This can be done any time before (by forwarding the request to the secretary) or during the meeting. By the end of the meeting, agenda items which remain 'starred' (\*) will be deemed approved or received.

**University of Windsor  
Program Development Committee**

**4.1: Question re: Indigenous Perspective in PDC Forms**

Item for: **Approval**

**MOTION:** That the following wording be included in the PDC Forms: “*The University of Windsor is committed to building stronger, more meaningful partnerships with Indigenous students, scholars and communities. In developing or revising this program or course, how has consideration been given to incorporating Indigenous (First Nations, Métis, or Inuit) content, perspectives, or material into the curriculum?*”

**Rationale:**

- At the Senate meeting of December 8<sup>th</sup> 2017, it agreed that PDC should include a mandatory section in course and program proposals about whether indigenous content or perspectives were considered when thinking through the course or program proposal.
- The goal would be to have all Faculties working to develop a strategy on how to indigenize and decolonize their curricula as per the *Truth and Reconciliation Report*.
- Following discussion on this question at the February PDC meeting, the following proposed question was sent to the Aboriginal Education Centre, the Aboriginal Education Council, as well as the Truth and Reconciliation Steering Committee at the Law school for feedback: “*In developing or revising the program or course, has consideration been given to whether and how Indigenous Peoples' perspectives can be incorporated into the curriculum of the program or course?*”.
- Feedback was provided back to PDC for discussion at its meeting on March 19, 2018. After a fulsome discussion, the revised wording to be placed on the PDC forms was: “*In developing or revising the program or course, how has consideration been given to incorporating Indigenous content (First Nations, Métis or Inuit), including Canada's historic and current structure of settler colonization, into the curriculum of the program or course?*”.
- After the March 19, 2018 PDC meeting, the proposed wording from PDC was then brought forward for discussion at Provosts Council in consultation with the Coordinator, Aboriginal Education Centre and the Aboriginal Outreach and Retention Coordinator who were both in attendance at the meeting
- The working was amended to the following: “*The University of Windsor is committed to building stronger, more meaningful partnerships with Indigenous students, scholars and communities. In developing or revising this program or course, how has consideration been given to incorporating Indigenous (First Nations, Métis, or Inuit) content, perspectives, or material into the curriculum?*”

**University of Windsor  
Program Development Committee**

4.2: **Biological Sciences Response to PDC summary and Recommendations (IQAP Review 2017)**

Item for: **Information**

**Rationale:**

*See attached.*

March 30, 2018

### **Short Response to PDC summary and Recommendations of Biological Sciences IQAP review 2017**

The Department of Biological Sciences was gratified by the overall positive review of the IQAP external examiners and appreciated their acknowledgments of our strong programs and training for both undergraduate and graduate students. While we look forward to focusing on the recommendations for improvement that are within the Department's power to affect change we were struck that many of the recommendations dealt with serious deficiencies at the Faculty of Science and, especially, University level that we have been fighting for years but are relatively powerless to improve without a more serious commitment from above. We wish make Senate aware of four of these issues.

In **recommendation #4** the PDC states that we must work with the Faculty of Science to provide full instructional support for our core 2<sup>nd</sup> year courses. The Department has been asking for this support for over 10 years but instead of increasing staff support we have seen a reduction in overall staffing due to the extreme budget cuts imposed by the University. We are now increasing in enrollments and the University has eased pressure on budgets and yet the Department requests have still been denied for this called-upon increased staffing

In **recommendation #5** the PDC states we must do a better job of tracking students post-graduation. We agree with this, and made some attempts to do this but have gotten no assistance from Alumni Affairs. We simply do not have the staffing resources to track all our graduates and have repeatedly requested this information from the University, only to be told it is unavailable.

In **recommendation #6** the PDC calls on a greater role for Staff in decision making and we have increased their say in departmental affairs over the past 5 years. However, their increased workload gives them little time and they are also limited by Senate rules in how much authority they have.

**Recommendation #7** is the most disappointing. The PDC states that the Department must "increase the pressure" to address the many health and safety violations and outdated facilities in our building. The Department has done everything within its power to push these issues and, even when students have been injured by falling down our out-of-code stairs, we are repeatedly ignored by the University. We have been extremely assertive in pushing the University on these issues so it is unfortunate that the PDC has told us to be more aggressive. We agree that health and safety needs are the basic responsibility of upper administration as put forth in the relevant Collective Agreements and this recommendation should be reworded to reflect where this responsibility falls. It is inappropriate to put it on the Department after our repeated battles on this front that have been ignored and unable to get the very results in question.



**UNIVERSITY OF WINDSOR**  
**UNIVERSITY PROGRAM REVIEW (UPR)**  
**REPORT ON: Biological Sciences**  
**GRADUATE AND UNDERGRADUATE PROGRAMS**  
**March 2018**

## EXECUTIVE SUMMARY

### Review Preparation

In preparing this document, the Program Development Committee reviewed the following: Biological Science's Self-Study (SS) (2015/2016), the report of the external reviewers (ER) (October 2017), the response from the Head (HR) (November 2017), and the response from the Dean (DR) (January 2018) to the above material. The external reviewers were: Dr. Suzie Currie, Department of Biology, Mount Allison University, Dr. Jack Gray, Department of Biology, University of Saskatchewan, and Dr. Cheri McGowan, Faculty of Human Kinetics, University of Windsor.

### Undergraduate and Graduate Programs

At the undergraduate level, the Department offers a Bachelor of Science (Honours) in Biological Sciences (with/without thesis), and a Bachelor of Science (Honours) in Molecular Biology and Biotechnology. The Department also collaborates with the Department of Chemistry and Biochemistry to offer a Bachelor of Science (Honours) in Biology and Biochemistry (Health and Biomedical Stream), with the Department of Psychology to offer a Bachelor of Science (Honours) in Behaviour, Cognition and Neuroscience, and with the Faculty of Education to offer a Concurrent Bachelor of Science (Honours) Biological Sciences (with/without thesis)/Bachelor of Education. However, admissions to the latter have been suspended since Fall 2014.

Students also have the option of combining their Honours Biological Sciences major with a major from another discipline.

The Department offers a Minor in Biological Sciences, as well as Major and Minor Concentrations in Biological Sciences for the Bachelor of Interdisciplinary Arts and Science.

At the graduate level, the Department offers a Master of Science in Biological Sciences, and a PhD in Biological Sciences.

### Enrolments

#### Undergraduate\*

	<b>Fall 2013</b>	<b>Fall 2014</b>	<b>Fall 2015</b>	<b>Fall 2016</b>	<b>Fall 2017</b>
<b>Full-Time</b>	605.04	622.61	579.42	567.58	605.70
<b>Part-Time</b>	100.80	89.24	97.40	71.70	87.90

*\*Enrolment numbers for the General Science program are split 60/40 between Biology and Chemistry.*

#### Graduate

	<b>Fall 2013</b>	<b>Fall 2014</b>	<b>Fall 2015</b>	<b>Fall 2016</b>	<b>Fall 2017</b>
<b>Full-Time</b>	49	50	45	42	43
<b>Part-Time</b>	4	2	2	2	1

### Human Resources

#### Faculty/Instructors

Tenure/tenure-track faculty	20 (including three cross-appointments)
AAS Learning Specialists	4
Sessional Lecturers	1
Faculty members involved in graduate program delivery	17

**Full/Part-time Staff**

Administrative Financial Clerk	.7
Biology Technician	1
Biotechnology Program Technician	.5
Facilities Maintenance Technician	1
Laboratory Demonstrator	.75
Laboratory Technician	.75
Receptionist Secretary	.7
Secretary to the Head/Graduate Program Secretary	1
Secretary	1
Technician	1

**FINAL ASSESSMENT REPORT (with Implementation Plan)****Significant Strengths of the Programs**

The External Reviewers commended Biological Sciences on the exceptional level of student engagement in the Department, and its quality faculty dedicated to providing experiential learning opportunities and “cutting-edge field and lab research” experiences to both graduate and undergraduate students in all its programs. (ER, p.2, p.3, p.11, p.12) “Faculty are generally strong, internationally recognized researchers” and “[s]tudents receive significant internal and external funds and are well supported.” (ER, p. 10, p.12)

The External Reviewers also drew special attention to the Department’s retention programs, noting that “[t]he First Year Survival Guide is an excellent and supportive guide for new students, as is the MySci mentoring program” which matches first-year students with upper-year students, and were equally “impressed with the graduate student 4-week orientation where incoming students learn how to succeed as a graduate student.” (ER, p.3, p.11)

**Opportunities for Program Improvement/Enhancements**

The External Reviewers raised concerns related to facilities renewal, citing potential health and safety concerns. If it has not already done so, the Department should develop a plan for the renewal of research and teaching equipment. (ER, p.5, p.6) The External Reviewers also stressed that efforts to improve workplace climate within the Department ought to be prioritized, to enable faculty to focus on the delivery of high quality undergraduate and graduate programs and research, and “allow the Department to realize its full potential as a leading academic unit in the university, the province and the country.” (ER, p.12, DR, p.1)

These and other opportunities for program improvements are captured in the recommendations listed below.

**IMPLEMENTATION PLAN****Recommendations (in priority order)**

*(Final recommendations arrived at by the Program Development Committee, following a review and assessment of the External Reviewers report, the Head’s response, and the Dean’s response.)*

**Recommendation 1:** That the Department submit program-level learning outcomes for its Combined Honours Biology program and concurrent BSc in Biology/Education program, engage in curricular planning and mapping for each of its programs, and submit course-level learning outcomes and assessment methods for each of its courses that clearly correspond to the program-level learning outcomes. As part of the curriculum planning exercise, that the Department report on efforts to integrate Indigenous ways of knowing into the curriculum.

**Agents:** Department Council, Head, CTL, Vice-Provost, Teaching and Learning

**Completion by:** Fall 2019

*[See attached for Program Learning Outcomes for Honours BSc in Biological Sciences (with/without thesis), Honours BSc in Molecular Biology and Biotechnology (MBB), Honours BSc in Behaviour, Cognition and Neuroscience, Honours BSc in Biology and Biochemistry (Health and Biomedical Stream), MSc in Biological Sciences and PhD in Biological Sciences.]*

**Recommendation 2:** That the Department, with the assistance of the Dean of Science, engage in an external mediation process to resolve the conflict that exists amongst the three programs, and submit an implementation plan with timelines to resolve remaining issues.

**Agents:** Faculty and staff members, Dean, Provost

**Completion by:** Fall 2019

**Recommendation 3:** That the Department establish:

- a. a policy by which the first graduate student committee meeting occurs within the first month following enrolment to establish a program of study that identifies and provides a timeline for required graduate courses.
- b. a common first-year graduate course, which will be an important component of this policy.

**Agents:** Head, Departmental Council

**Completion by:** Fall 2019

**Recommendation 4:** Working jointly with the Faculty of Science, that the Department provide full instructional support for core course offerings, particularly the Genetics and the Molecular Biology courses. (For example, AAS/LS lab coordination, lab instructor support, graduate assistants.)

**Agents:** Head

**Completion by:** Fall 2019

**Recommendation 5: That the Department**

- a) review its undergraduate completion rates for accuracy and report on strategies to address low completion rates, if applicable.
- b) develop and report on a mechanism for better tracking student success and pursuits post-graduation.

**Agents:** Head, Institutional Analysis, Alumni Affairs

**Completion by:** Fall 2019

**Recommendation 6:** That technical and administrative staff participate in Departmental committees and have input for decision-making.

**Agents:** Head, Departmental Council

**Completion by:** Fall 2019

**Recommendation 7:** That the Department, working with the Dean and the Provost, increase the pressure to have renovations/repairs to outdated/non-functioning spaces within the Biology Building funded. The lack of timely repairs to core facilities has significantly impaired the proper functionality of these spaces and has compromised ongoing experiments. Many of these repairs revolve around heating and cooling issues that should not be left to the Department to resolve with an inappropriate budget and therefore the Head is encouraged to continue to regularly make a case, with the assistance of the Dean, for funding for renovations. Perhaps, more importantly, these issues raise serious concerns with the health and safety of the people working in the Department.

**Agents:** Head, Dean, Provost, VP Planning and Administration

**Completion by:** Fall 2019

**Recommendation 8:** That the allocation of GAs and TAs be communicated transparently and within a timely manner.

**Agents:** Head

**Completion by:** Fall 2019

**UNDERGRADUATE**

**Honours BSc in Biological Sciences (with/without thesis)**

Program Learning Outcomes	Characteristics of a University of Windsor Graduate	COU-approved Undergraduate Degree Level Expectations
<p><u>At the end of this program, the successful student will know and be able to:</u></p>	<p><u>A U of Windsor graduate will have the ability to demonstrate:</u></p>	
<p>A.</p> <ul style="list-style-type: none"> <li>- Describe a wide range of core biological concepts that include molecular biology, genetics, ecology, and evolution.</li> <li>- Define the scientific method as it relates to research and societal issues.</li> <li>- Describe and integrate the relationship between biological structure and function at any level of the biological organization of life (molecular level to biosphere)</li> </ul> <p><b><i>Bachelor of Science – Biological Sciences with thesis:</i></b> Integrate acquired content into a specific research context</p>	<p>A. the acquisition, application and integration of knowledge</p>	<ol style="list-style-type: none"> <li>1. Depth and Breadth of Knowledge</li> <li>2. Knowledge of Methodologies</li> <li>3. Application of Knowledge</li> <li>5. Awareness of Limits of Knowledge</li> </ol>
<p>B.</p> <ul style="list-style-type: none"> <li>- locate and access resources and primary scientific literature information.</li> <li>- Conduct laboratory experiments accurately and safely, employing appropriate tools and procedures.</li> <li>- Formulate and test a hypothesis using appropriate methodologies.</li> </ul> <p><b><i>Bachelor of Science – Biological Sciences with thesis:</i></b> Design and conduct a research investigation that is thoughtfully situated in extant literature</p>	<p>B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>	<ol style="list-style-type: none"> <li>1. Depth and Breadth of Knowledge</li> <li>2. Knowledge of Methodologies</li> <li>3. Application of Knowledge</li> <li>5. Awareness of Limits of Knowledge</li> </ol>
<p>C.</p> <ul style="list-style-type: none"> <li>- critically analyze a biological topic and provide a justification for this evaluation</li> <li>- access and effectively utilize the primary research literature for solving problems</li> <li>- formulate and test hypotheses</li> </ul> <p><b><i>Bachelor of Science – Biological Sciences with thesis:</i></b> Apply the primary literature to a new research problem</p>	<p>C. critical thinking and problem-solving skills</p>	<ol style="list-style-type: none"> <li>1. Depth and Breadth of Knowledge</li> <li>2. Knowledge of Methodologies</li> <li>3. Application of Knowledge</li> <li>5. Awareness of Limits of Knowledge</li> </ol>
<p>D.</p> <ul style="list-style-type: none"> <li>- write a formal paper with the correct structure (e.g. include proper citations, references, etc.)</li> <li>- express complex concepts in written form</li> <li>- analyze data and interpret results of biological research</li> <li>- solve quantitative problems</li> </ul> <p><b><i>Bachelor of Science – Biological Sciences with thesis:</i></b> write a research paper in a publishable format</p>	<p>D. literacy and numeracy skills</p>	<ol style="list-style-type: none"> <li>4. Communication Skills</li> <li>5. Awareness of Limits of Knowledge</li> </ol>

Program Learning Outcomes	Characteristics of a University of Windsor Graduate	COU-approved Undergraduate Degree Level Expectations
<p><u>At the end of this program, the successful student will know and be able to:</u></p> <p>E.</p> <ul style="list-style-type: none"> <li>- provide evidence of basic technical skills and safe practice in a laboratory or field situation</li> <li>- recognize and practice the rules of academic integrity</li> <li>-</li> </ul> <p><b>Bachelor of Science – Biological Sciences with thesis:</b> conduct independent research. (Also relevant to B)</p>	<p><u>A U of Windsor graduate will have the ability to demonstrate:</u></p> <p>E. responsible behaviour to self, others and society</p>	<p>5. Awareness of Limits of Knowledge</p> <p>6. Autonomy and Professional Capacity</p>
<p>F.</p> <ul style="list-style-type: none"> <li>- produce an effective communication (e.g. paper, presentation, website, etc.) on a biological subject.</li> <li>- qualitatively summarize and objectively present data</li> </ul> <p><b>Bachelor of Science – Biological Sciences with thesis:</b> Formulate an in-depth research report and communicate the results in a community setting (Also relevant to B)</p>	<p>F. interpersonal and communications skills</p>	<p>4. Communication Skills</p> <p>6. Autonomy and Professional Capacity</p>
<p>G.</p> <ul style="list-style-type: none"> <li>- participate constructively and cooperatively in group activities</li> </ul> <p><b>Bachelor of Science – Biological Sciences with thesis:</b> Work as part of a team in a research setting.</p>	<p>G. teamwork, and personal and group leadership skills</p>	<p>4. Communication Skills</p> <p>6. Autonomy and Professional Capacity</p>
<p>H.</p> <ul style="list-style-type: none"> <li>- analyze methodology used to distinguish between different functionalities of diverse biological systems</li> <li>- Design innovative solutions to demonstrate biological concepts</li> </ul>	<p>H. creativity and aesthetic appreciation</p>	<p>2. Knowledge of Methodologies</p> <p>3. Application of Knowledge</p> <p>6. Autonomy and Professional Capacity</p>
<p>I.</p> <ul style="list-style-type: none"> <li>- Predict future patterns based on present data on the rapidly changing nature of biology</li> <li>- apply knowledge and skills to present issues</li> </ul>	<p>I. the ability and desire for continuous learning</p>	<p>6. Autonomy and Professional Capacity</p>

## Honours BSc in Molecular Biology and Biotechnology (MBB)

Program Learning Outcomes	Characteristics of a University of Windsor Graduate A U of Windsor graduate will have the ability to demonstrate:	COU-approved Undergraduate Degree Level Expectations
<p><u>At the end of this program, the successful student will know and be able to:</u></p> <p>A.</p> <ul style="list-style-type: none"> <li>- Describe a wide range of core biological concepts that include molecular biology, genetics, ecology, and evolution.</li> <li>- Define the scientific method as it relates to research and societal issues</li> <li>- Describe and integrate the relationship between biological structure and function at any level of the biological organization of life (molecular level to biosphere)</li> <li>- Illustrate an advanced understanding of cellular and molecular biology concepts.</li> </ul>	<p>A. the acquisition, application and integration of knowledge</p>	<ol style="list-style-type: none"> <li>1. Depth and Breadth of Knowledge</li> <li>2. Knowledge of Methodologies</li> <li>3. Application of Knowledge</li> <li>5. Awareness of Limits of Knowledge</li> </ol>
<p>B.</p> <ul style="list-style-type: none"> <li>- locate and access resources and primary scientific literature information in molecular biology and biotechnology.</li> <li>- Conduct safe laboratory experiments in molecular biology and biotechnology</li> <li>-Develop a research proposal with literature citations to address research hypotheses in the area of molecular biology and biotechnology.</li> </ul>	<p>B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>	<ol style="list-style-type: none"> <li>1. Depth and Breadth of Knowledge</li> <li>2. Knowledge of Methodologies</li> <li>3. Application of Knowledge</li> <li>5. Awareness of Limits of Knowledge</li> </ol>
<p>C.</p> <ul style="list-style-type: none"> <li>- Critically analyze a topic in molecular biology and provide a justification for this evaluation</li> <li>- access and effectively utilize the primary research literature for solving problems in Biology and Biotechnology</li> <li>- formulate and test hypotheses</li> <li>- Apply the primary literature to a new research problem in molecular biology or biotechnology</li> </ul>	<p>C. critical thinking and problem-solving skills</p>	<ol style="list-style-type: none"> <li>1. Depth and Breadth of Knowledge</li> <li>2. Knowledge of Methodologies</li> <li>3. Application of Knowledge</li> <li>5. Awareness of Limits of Knowledge</li> </ol>
<p>D.</p> <ul style="list-style-type: none"> <li>- write a formal paper with the correct structure (e.g. include proper citations, references, etc.)</li> <li>- express complex concepts in written form</li> <li>-demonstrate an ability to analyze data and interpret results</li> <li>-demonstrate an ability to solve quantitative problems</li> </ul>	<p>D. literacy and numeracy skills</p>	<ol style="list-style-type: none"> <li>4. Communication Skills</li> <li>5. Awareness of Limits of Knowledge</li> </ol>
<p>E.</p> <ul style="list-style-type: none"> <li>- Show advanced research skills in a molecular biology laboratory setting</li> <li>- recognize and practice the rules of academic integrity as appropriate to the program</li> </ul>	<p>E. responsible behaviour to self, others and society</p>	<ol style="list-style-type: none"> <li>5. Awareness of Limits of Knowledge</li> <li>6. Autonomy and Professional Capacity</li> </ol>

<b>Program Learning Outcomes</b>  <u>At the end of this program, the successful student will know and be able to:</u>	<b>Characteristics of a University of Windsor Graduate</b>  <u>A U of Windsor graduate will have the ability to demonstrate:</u>	<b>COU-approved Undergraduate Degree Level Expectations</b>
<p>F.</p> <p>Formulate an in-depth research report and communicate the results in a community setting</p> <p>qualitatively summarize and objectively present data</p> <p>(Also relevant to B)</p>	<p>F. interpersonal and communications skills</p>	<p>4. Communication Skills</p> <p>6. Autonomy and Professional Capacity</p>
<p>G.</p> <ul style="list-style-type: none"> <li>- participate constructively and cooperatively in group activities</li> <li>- Work as part of a team in a research setting</li> </ul>	<p>G. teamwork, and personal and group leadership skills</p>	<p>4. Communication Skills</p> <p>6. Autonomy and Professional Capacity</p>
<p>H.</p> <ul style="list-style-type: none"> <li>- analyze methodology used to distinguish between different functionalities of diverse biological systems</li> <li>- Design innovative solutions to demonstrate biological concepts</li> </ul>	<p>H. creativity and aesthetic appreciation</p>	<p>2. Knowledge of Methodologies</p> <p>3. Application of Knowledge</p> <p>6. Autonomy and Professional Capacity</p>
<p>I.</p> <ul style="list-style-type: none"> <li>- Predict future patterns based on present data on the rapidly changing nature of biology</li> <li>apply knowledge and skills to present issues</li> </ul>	<p>I. the ability and desire for continuous learning</p>	<p>6. Autonomy and Professional Capacity</p>

### **Honours BSc in Behaviour, Cognition and Neuroscience (BCN)**

<b>Program Learning Outcomes</b>  <u>At the end of this program, the successful student will know and be able to:</u>	<b>Characteristics of a University of Windsor Graduate</b>  <u>A U of Windsor graduate will have the ability to demonstrate:</u>	<b>COU-approved Undergraduate Degree Level Expectations</b>
<p>A.</p> <ul style="list-style-type: none"> <li>- Describe a wide range of core biological and psychological concepts.</li> <li>- Define the scientific method as it relates to research and societal issues</li> <li>- describe and integrate the relationship between biological structure and function at any level of the biological organization of life and the interactions between biological and psychological concepts</li> <li>- Integrate acquired content into a specific research context</li> </ul>	<p>A. the acquisition, application and integration of knowledge</p>	<p>1. Depth and Breadth of Knowledge</p> <p>2. Knowledge of Methodologies</p> <p>3. Application of Knowledge</p> <p>5. Awareness of Limits of Knowledge</p>

Program Learning Outcomes	Characteristics of a University of Windsor Graduate  <u>A U of Windsor graduate will have the ability to demonstrate:</u>	COU-approved Undergraduate Degree Level Expectations
<u>At the end of this program, the successful student will know and be able to:</u> <ul style="list-style-type: none"> <li>B.</li> <li>- locate and access resources and integrate scientific literature information</li> <li>- Conduct laboratory experiments accurately and safely in the area of neuroscience</li> <li>- Develop a research proposal with literature citations to address research hypotheses in the area of biological or psychological neuroscience.</li> </ul>	<ul style="list-style-type: none"> <li>B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</li> </ul>	<ol style="list-style-type: none"> <li>1. Depth and Breadth of Knowledge</li> <li>2. Knowledge of Methodologies</li> <li>3. Application of Knowledge</li> <li>5. Awareness of Limits of Knowledge</li> </ol>
<ul style="list-style-type: none"> <li>C.</li> <li>- critically analyze a topic and provide a justification for this evaluation</li> <li>- access and effectively utilize the primary research literature for solving problems in neuroscience</li> <li>- formulate and test hypotheses</li> </ul> <p>Apply the primary literature to a new research problem appropriate to introductory research in neuroscience</p>	<ul style="list-style-type: none"> <li>C. critical thinking and problem-solving skills</li> </ul>	<ol style="list-style-type: none"> <li>1. Depth and Breadth of Knowledge</li> <li>2. Knowledge of Methodologies</li> <li>3. Application of Knowledge</li> <li>5. Awareness of Limits of Knowledge</li> </ol>
<ul style="list-style-type: none"> <li>D.</li> <li>- write a formal paper with the correct structure (e.g. include proper citations, references, etc.)</li> <li>- express complex concepts in written form</li> <li>- analyze data and interpret results</li> <li>- solve quantitative problems</li> <li>- write a coherent or complete research project in a publishable format in a neuroscience field</li> </ul>	<ul style="list-style-type: none"> <li>D. literacy and numeracy skills</li> </ul>	<ol style="list-style-type: none"> <li>4. Communication Skills</li> <li>5. Awareness of Limits of Knowledge</li> </ol>
<ul style="list-style-type: none"> <li>E.</li> <li>- provide evidence of basic technical skills and safe practice in a laboratory situation</li> <li>- recognize and practice the rules of academic integrity as appropriate to your program</li> <li>- conduct independent research</li> </ul>	<ul style="list-style-type: none"> <li>E. responsible behaviour to self, others and society</li> </ul>	<ol style="list-style-type: none"> <li>5. Awareness of Limits of Knowledge</li> <li>6. Autonomy and Professional Capacity</li> </ol>
<ul style="list-style-type: none"> <li>F.</li> <li>- produce an effective communication (e.g. paper, presentation, website, etc.) on a biological subject based on the individual's ability to acquire and interpret relevant information.</li> <li>- qualitatively summarize and objectively present data</li> <li>- Formulate a research paper and communicate the results in a community</li> </ul>	<ul style="list-style-type: none"> <li>F. interpersonal and communications skills</li> </ul>	<ol style="list-style-type: none"> <li>4. Communication Skills</li> <li>6. Autonomy and Professional Capacity</li> </ol>
<ul style="list-style-type: none"> <li>G.</li> <li>- participate constructively and cooperatively in group activities</li> </ul> <p>Work as part of a team in a research setting.</p>	<ul style="list-style-type: none"> <li>G. teamwork, and personal and group leadership skills</li> </ul>	<ol style="list-style-type: none"> <li>4. Communication Skills</li> <li>6. Autonomy and Professional Capacity</li> </ol>

<b>Program Learning Outcomes</b>  <u>At the end of this program, the successful student will know and be able to:</u>	<b>Characteristics of a University of Windsor Graduate</b>  <u>A U of Windsor graduate will have the ability to demonstrate:</u>	<b>COU-approved Undergraduate Degree Level Expectations</b>
<p>H.</p> <ul style="list-style-type: none"> <li>- Analyze methodology used to distinguish between functionalities of diverse biological and psychological systems</li> <li>- Design innovative solutions to biological and physiological concepts.</li> </ul>	<p>H. creativity and aesthetic appreciation</p>	<p>2. Knowledge of Methodologies 3. Application of Knowledge 6. Autonomy and Professional Capacity</p>
<p>I.</p> <ul style="list-style-type: none"> <li>- Predict future patterns based on present data on the rapidly changing nature of biology</li> <li>- apply knowledge and skills to present issues</li> </ul>	<p>I. the ability and desire for continuous learning</p>	<p>6. Autonomy and Professional Capacity</p>

#### **Honours BSc in Biology and Biochemistry (Health and Biomedical Stream)**

<b>Program Learning Outcomes</b>  <u>At the end of this program, the successful student will know and be able to:</u>	<b>Characteristics of a University of Windsor Graduate</b>  <u>A U of Windsor graduate will have the ability to demonstrate:</u>	<b>COU-approved Undergraduate Degree Level Expectations</b>
<p>A.</p> <ul style="list-style-type: none"> <li>- describe and apply a wide range of core biomedical concepts.</li> <li>- apply the scientific method as it relates to research and societal issues.</li> <li>- describe the relationship between chemical and biological structure and function at all levels of the organization of life (molecular level to biosphere).</li> <li>- apply key chemical and biological principles in a biomedical context.</li> </ul>	<p>A. the acquisition, application and integration of knowledge</p>	<p>1. Depth and Breadth of Knowledge 2. Knowledge of Methodologies 3. Application of Knowledge 5. Awareness of Limits of Knowledge</p>
<p>B.</p> <ul style="list-style-type: none"> <li>- collect, read, analyze, synthesize and evaluate relevant scientific literature to address a specific health/biomedical science area.</li> </ul>	<p>B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>	<p>1. Depth and Breadth of Knowledge 2. Knowledge of Methodologies 3. Application of Knowledge 5. Awareness of Limits of Knowledge</p>
<p>C.</p> <ul style="list-style-type: none"> <li>- critically analyze a biomedical topic and provide a justification for this analysis.</li> <li>- access and effectively utilize the primary research literature for solving biological and biochemical problems.</li> </ul>	<p>C. critical thinking and problem-solving skills</p>	<p>1. Depth and Breadth of Knowledge 2. Knowledge of Methodologies 3. Application of Knowledge</p>

<b>Program Learning Outcomes</b>  <u>At the end of this program, the successful student will know and be able to:</u>	<b>Characteristics of a University of Windsor Graduate</b>  <u>A U of Windsor graduate will have the ability to demonstrate:</u>	<b>COU-approved Undergraduate Degree Level Expectations</b>
<ul style="list-style-type: none"> <li>- formulate and test hypotheses</li> </ul>		5. Awareness of Limits of Knowledge
<p>D.</p> <ul style="list-style-type: none"> <li>- write a formal paper with the correct structure (e.g., include proper citations, references, etc.)</li> <li>- express complex biological and biochemical concepts in written form.</li> <li>- analyze biological and biochemical data and interpret results.</li> <li>- solve quantitative problems</li> </ul>	<p>D. literacy and numeracy skills</p>	<p>4. Communication Skills 5. Awareness of Limits of Knowledge</p>
<p>E.</p> <ul style="list-style-type: none"> <li>- demonstrate basic biology and biochemistry techniques, use of common biological/biochemical lab equipment, and safe laboratory practice.</li> <li>- follow the rules of academic integrity appropriate to the discipline.</li> </ul>	<p>E. responsible behaviour to self, others and society</p>	<p>5. Awareness of Limits of Knowledge 6. Autonomy and Professional Capacity</p>
<p>F.</p> <ul style="list-style-type: none"> <li>- produce an effective communication on a biological/biochemical subject.</li> <li>- qualitatively summarize and objectively present data.</li> </ul>	<p>F. interpersonal and communications skills</p>	<p>4. Communication Skills 6. Autonomy and Professional Capacity</p>
<p>G.</p> <ul style="list-style-type: none"> <li>- participate constructively and cooperatively in group activities.</li> </ul>	<p>G. teamwork, and personal and group leadership skills</p>	<p>4. Communication Skills 6. Autonomy and Professional Capacity</p>
<p>H.</p> <ul style="list-style-type: none"> <li>- describe examples that illustrate the functionality and diversity of biological systems.</li> <li>- Design innovative solutions to demonstrate biomedical concepts.</li> </ul>	<p>H. creativity and aesthetic appreciation</p>	<p>2. Knowledge of Methodologies 3. Application of Knowledge 6. Autonomy and Professional Capacity</p>
<p>I.</p> <ul style="list-style-type: none"> <li>- apply biological and chemical knowledge and laboratory skills to solve relevant issues in the biomedical field.</li> <li>- collect, read, and evaluate the most current literature in the rapidly changing field of health and biomedical sciences</li> </ul>	<p>I. the ability and desire for continuous learning</p>	<p>6. Autonomy and Professional Capacity</p>

**GRADUATE**  
**MSc in Biological Sciences**

<b>Program Learning Outcomes (Degree Level Expectations)</b>	<b>Characteristics of a University of Windsor Graduate</b>	<b>OCGS-approved Graduate Degree Level Expectations</b>
<p><i>This is a sentence completion exercise. Please provide a minimum of 1 learning outcome for each of the boxes associated with a graduate attribute.</i></p> <p><u>At the end of this program, the successful student will know and be able to:</u></p>	<p><u>A UWindsor graduate will have the ability to demonstrate:</u></p>	
<p><b>A.</b></p> <ul style="list-style-type: none"> <li>- demonstrate an advanced understanding of biological concepts in the area under investigation.</li> <li>- demonstrate a sophisticated understanding of research themes across biological science</li> </ul> <p><b>+ MSc. – Biological Sciences – Neuroscience and Behaviour:</b> Same as above but with specific expertise in neuroscience</p>	<p>A. the acquisition, application and integration of knowledge</p>	<p>1. Depth and Breadth of Knowledge          2. Research and Scholarship          3. Level of Application of Knowledge          6. Awareness of Limits of Knowledge</p>
<p><b>B.</b></p> <ul style="list-style-type: none"> <li>- Design an independent research project in cognate discipline</li> <li>- Extrapolate research findings to new areas of research</li> </ul> <p><b>+ MSc. – Biological Sciences – Neuroscience and Behaviour:</b> Same as above but with specific expertise in neuroscience</p>	<p>B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>	<p>2. Research and Scholarship          3. Level of Application of Knowledge          6. Awareness of Limits of Knowledge</p>
<p><b>C.</b></p> <ul style="list-style-type: none"> <li>- Troubleshoot problems that arise in conduct of research</li> <li>- Formulate and test specific hypotheses</li> <li>- Develop an ability to conduct research independently</li> <li>- Evaluate data and interpret results in a scientific context</li> <li>-</li> </ul> <p><b>+ MSc. – Biological Sciences – Neuroscience and Behaviour:</b> Same as above but with specific expertise in neuroscience</p>	<p>C. critical thinking and problem-solving skills</p>	<p>1. Depth and Breadth of Knowledge          2. Research and Scholarship          3. Level of Application of Knowledge          4. Professional Capacity/autonomy</p>
<p><b>D.</b></p> <ul style="list-style-type: none"> <li>- Write a research paper with at least one publishable data chapter.</li> <li>- conduct novel research in cognate area</li> </ul> <p><b>+ MSc. – Biological Sciences – Neuroscience and Behaviour:</b> Same as above but with specific expertise in neuroscience</p>	<p>D. literacy and numeracy skills</p>	<p>2. Research and Scholarship          5. Level of Communication Skills</p>
<p><b>E.</b></p> <ul style="list-style-type: none"> <li>- Conduct research with the highest degrees of scientific integrity</li> <li>- Provide constructive criticism to others</li> </ul> <p><b>+ MSc. – Biological Sciences – Neuroscience and Behaviour:</b> Same as above but with specific expertise in neuroscience</p>	<p>E. responsible behaviour to self, others and society</p>	<p>4. Professional Capacity/Autonomy          6. Awareness of Limits of Knowledge</p>

<p><b>F.</b></p> <ul style="list-style-type: none"> <li>- Synthesize original results into a publishable paper</li> <li>- Communicate research results to a broad audience</li> <li>- Defend research to specialists in cognate area</li> </ul> <p><b>+ MSc. – Biological Sciences – Neuroscience and Behaviour</b> Same as above but with specific expertise in neuroscience</p>	<p>F. interpersonal and communications skills</p>	<p>5. Level of Communication Skills</p>
<p><b>G.</b></p> <ul style="list-style-type: none"> <li>- work effectively in a research lab setting</li> <li>- Teach effectively in an undergraduate course setting</li> <li>- Provide constructive feedback to peers and colleagues</li> </ul> <p><b>+ MSc. – Biological Sciences – Neuroscience and Behaviour</b> Same as above but with specific expertise in neuroscience</p>	<p>G. teamwork, and personal and group leadership skills</p>	<p>4. Professional Capacity/Autonomy 5. Level of Communication Skills</p>
<p><b>H.</b></p> <ul style="list-style-type: none"> <li>- design original research hypotheses and experiments to address novel questions.</li> </ul> <p><b>+ MSc. – Biological Sciences – Neuroscience and Behaviour</b> Same as above but with specific expertise in neuroscience</p>	<p>H. creativity and aesthetic appreciation</p>	<p>2. Research and Scholarship 4. Professional Capacity/autonomy 6. Awareness of Limits of Knowledge</p>
<p><b>I.</b></p> <ul style="list-style-type: none"> <li>- stay abreast of current literature in research area</li> </ul> <p><b>+ MSc. – Biological Sciences – Neuroscience and Behaviour</b> Same as above but with specific expertise in neuroscience</p>	<p>I. the ability and desire for continuous learning</p>	<p>4. Professional Capacity/autonomy</p>

## PhD in Biological Sciences

Program Learning Outcomes (Degree Level Expectations)	Characteristics of a University of Windsor Graduate	OCGS-approved Graduate Degree Level Expectations
<p><i>This is a sentence completion exercise. Please provide a minimum of 1 learning outcome for each of the boxes associated with a graduate attribute.</i></p> <p><u>At the end of this program, the successful student will know and be able to:</u></p>	<p><u>A UWindsor graduate will have the ability to demonstrate:</u></p>	
<p><b>A.</b></p> <ul style="list-style-type: none"> <li>- - explain the scientific concepts key to the biological concepts in the specific area under investigation.</li> <li>- Integrate concepts in research themes across biological science</li> </ul> <p><b>+ PhD – Biological Sciences – Neuroscience and Behaviour:</b> Same as above but with specific expertise in neuroscience</p>	<p>A. the acquisition, application and integration of knowledge</p>	<p>1. Depth and Breadth of Knowledge 2. Research and Scholarship 3. Level of Application of Knowledge 6. Awareness of Limits of Knowledge</p>

<p>B.</p> <ul style="list-style-type: none"> <li>- Design an independent and multifaceted research project in cognate discipline</li> <li>- synthesize the literature across a wide range of biological disciplines, with special expertise in cognate area</li> <li>- Conduct novel research that makes a substantive contribution to extant literature in the area of specialization</li> <li>- Relate research to previous findings and guide the field on productive areas for future research</li> </ul>	<p>B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>	<p>2. Research and Scholarship 3. Level of Application of Knowledge 6. Awareness of Limits of Knowledge</p>
<p><b>+ PhD – Biological Sciences – Neuroscience and Behaviour</b> Same as above but with specific expertise in neuroscience</p>		
<p>C.</p> <ul style="list-style-type: none"> <li>- Troubleshoot problems that arise in the conduct of research</li> <li>- Formulate and test specific hypotheses</li> <li>- conduct independent research and design new experimental approaches</li> <li>- Evaluate data and interpret results in a scientific context</li> </ul> <p><b>+ PhD – Biological Sciences – Neuroscience and Behaviour :</b> Same as above but with specific expertise in neuroscience</p>	<p>C. critical thinking and problem-solving skills</p>	<p>1. Depth and Breadth of Knowledge 2. Research and Scholarship 3. Level of Application of Knowledge 4. Professional Capacity/autonomy 6. Awareness of Limits of Knowledge</p>
<p>D.</p> <ul style="list-style-type: none"> <li>- Write a coherent, independent, publishable research papers</li> <li>- Present research professionally, accurately and concisely at a scientific conference in cognate area</li> </ul> <p><b>+ PhD – Biological Sciences – Neuroscience and Behaviour:</b> Same as above but with specific expertise in neuroscience</p>	<p>D. literacy and numeracy skills</p>	<p>2. Research and Scholarship 5. Level of Communication Skills</p>
<p>E.</p> <ul style="list-style-type: none"> <li>- Conduct research with the highest degrees of scientific integrity</li> <li>- Provide constructive criticism to peers and colleagues.</li> <li>- mentor graduate and undergraduate students on proper conduct of research</li> </ul> <p><b>+ PhD – Biological Sciences – Neuroscience and Behaviour:</b> Same as above but with specific expertise in neuroscience</p>	<p>E. responsible behaviour to self, others and society</p>	<p>4. Professional Capacity/Autonomy 6. Awareness of Limits of Knowledge</p>
<p>F.</p> <ul style="list-style-type: none"> <li>- See section D above</li> <li>-</li> </ul> <p><b>+ PhD – Biological Sciences – Neuroscience and Behaviour:</b> Same as above but with specific expertise in neuroscience</p>	<p>F. interpersonal and communications skills</p>	<p>5. Level of Communication Skills</p>

<p>G.</p> <ul style="list-style-type: none"> <li>- work effectively in a research lab setting</li> <li>- Teach effectively in an undergraduate course setting</li> <li>- Provide constructive feedback to fellow peers and novice researchers.</li> </ul> <p><b>+ PhD – Biological Sciences – Neuroscience and Behaviour</b> Same as above but with specific expertise in neuroscience</p>	<p>G. teamwork, and personal and group leadership skills</p>	<p>4. Professional Capacity/Autonomy 5. Level of Communication Skills</p>
<p>H.</p> <ul style="list-style-type: none"> <li>- demonstrate creativity in expressing biological concepts and in design effective experiments to test hypotheses.</li> </ul> <p><b>+ PhD – Biological Sciences – Neuroscience and Behaviour:</b> Same as above but with specific expertise in neuroscience</p>	<p>H. creativity and aesthetic appreciation</p>	<p>2. Research and Scholarship 4. Professional Capacity/autonomy 6. Awareness of Limits of Knowledge</p>
<p>I.</p> <ul style="list-style-type: none"> <li>-- stay abreast of current and future plans in research area</li> <li>-- write a novel NSERC- or CIHR-style proposal</li> </ul> <p><b>+ PhD – Biological Sciences – Neuroscience and Behaviour:</b> Same as above but with specific expertise in neuroscience</p>	<p>I. the ability and desire for continuous learning</p>	<p>4. Professional Capacity/autonomy</p>

University of Windsor  
Program Development Committee

\*5.1           **Computer Science – Minor Program Changes (PDC Form C)**

Item for:   **Approval**

**MOTION:**   **That the changes to the degree requirements for the Bachelor of Science (Honours Computer Science with Software Engineering Specialization) be approved, according to the program/course change forms\*.**

*\*Subject to approval of the expenditures required.*

**Rationale/Approvals**

- The proposed changes have been approved the Departmental Council and the Faculty of Science Coordinating Council.
- *See attached.*

# PROGRAM DEVELOPMENT COMMITTEE

## MINOR PROGRAM CHANGES

### FORM C

**INSTRUCTIONS ARE PROVIDED IN SHADED AREAS. DO NOT WRITE IN SHADED AREAS.  
ALL FIELDS MUST BE COMPLETED, MARKING N/A WHERE NOT APPLICABLE.**

University policy states that students may follow the academic rules and program regulations set out in the calendar of the term in which they were first admitted to a program or any subsequent calendar. In light of this, students already in the program must be permitted to complete the degree requirements according to the calendar of the term in which they enrolled (or any subsequent calendar). If courses are no longer available, appropriate substitutes must be made.

<b>TITLE OF PROGRAM(S)/CERTIFICATE(S):</b>	Bachelor of Science (Honours Computer Science with Software Engineering Specialization)
<b>DEPARTMENT(S)/SCHOOL(S):</b>	School of Computer Science
<b>FACULTY(IES):</b>	Science

<b>Proposed change(s) effective as of*</b> [Fall, Winter, Spring]: <i>*(subject to timely and clear submission)</i>	Fall 2018
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#### A.1 PROGRAM REQUIREMENT CHANGES

*Please provide the current program requirements and the proposed new program requirements by cutting and pasting from the current undergraduate or graduate web calendar ([www.uwindsor.ca/calendars](http://www.uwindsor.ca/calendars)) and clearly marking deletions with strikethrough (~~strikethrough~~) and additions/new information with **bolding** and underlining.*

*Example:*

Degree requirements: 00-100, ~~00-101~~, 00-110, 00-210, 00-310, 00-410, plus three additional courses at the **300-level or 400-level**.

#### Bachelor of Science (Honours Computer Science with Software Engineering Specialization)

##### **Degree Requirements:**

*Total courses:* forty.

(a) 60-100, 60-140, 60-141, 60-212, 60-214, 60-231, 60-254, 60-256, 60-265, 60-266, 60-280, 60-311, 60-315, 60-322, 60-330, 60-354, 60-367, 60-411, 60-440, 60-454, 60-480, 60-496 or 60-499 (both 6.0 credit hour courses), plus one additional Computer Science course.

(b) 62-120 (or 62-125), 62-140 (or 62-139), 62-141, 62-190, and 65-250 (or 65-205).

(c) ~~any four of 24-210, 26-140, 34-129, 34-228, 46-115, 75-100 (or 71-240)~~ courses, one from each category: (i) **Dynamics and Psychology:** 46-115, 46-218, 34-228, 34-129, (ii) **Communication skills:** 40-221, 24-210/40-210, 26-100, (iii) **Professionalism:** 34-221, 34-224, 01-209, 26-140, and (iv) **Business and Management:** 74-131, 75-100, 71-240.

(d) two courses from Arts, Languages or Social Sciences, including one from Arts/Languages and one from Social Sciences;

(e) four additional courses from any area of study, including Computer Science.

(f) one course at the 200-400 level from Mathematics/Statistics or Computer Science (excluding 60-205, 60-207, 60-209, 60-270, 60-305, 60-307).

# PROGRAM DEVELOPMENT COMMITTEE

## MINOR PROGRAM CHANGES

### FORM C

The major average will be calculated on the basis of grades obtained in 60-100, 60-140, 60-141, 60-212, 60-214, 60-231, 60-254, 60-256, 60-265, 60-266, 60-280, 60-311, 60-315, 60-322, 60-330, 60-354, 60-367, 60-411, 60-440, 60-454, 60-480, and either 60-496 or 60-499.

#### RECOMMENDED COURSE SEQUENCE

*First Year:* ten courses, including 60-100, 60-140, 60-141, 62-120 (or 62-125), 62-140 (or 62-139), 62-141 and 62-190.

*Second Year:* ten courses, including 60-212, 60-214, 60-231, 60-254, 60-256, 60-265, 60-266, 60-280, and 65-250 (or 65-205).

*Third Year:* ten courses, including 60-311, 60-315, 60-322, 60-330, 60-354, 60-367.

*Fourth Year:* ten courses, including 60-411, 60-440, 60-454, 60-480, and 60-499 (a 6.0 credit hour course).

To remove any suggestion that the word "engineering," in the context of courses or programs in Computer Science implies the meaning of "engineering" as used in the context of courses or programs in Professional Engineering, it is hereby acknowledged that Software Engineering is a collection of principles, models, methods, and techniques for the development, maintenance, evolution, and reuse of software that meets fundamental performance and quality requirements in an economic and competitive manner.

#### A.2 MINOR COURSE CHANGES REQUIRING ADDITIONAL RESOURCES OR AFFECTING DEGREE REQUIREMENTS

*If this is a minor course and calendar change (usually noted on a Form E) requiring additional resources or affecting degree requirements, please provide the current course information and the proposed new course information by cutting and pasting from the current undergraduate or graduate web calendar and clearly marking deletions with strikethrough (~~strikethrough~~) and additions/new information with **bolding** and underlining.*

*Examples of minor course changes include: deleting courses, course description changes, pre/anti/co- requisite changes, contact hour/lab requirement changes, course title changes, renumbering courses, and/or cross-listing courses. Minor course calendar changes, which do not require additional resources or do not affect degree requirements, should be submitted on a Form E.*

**None.** Courses added in this list are already offered by other departments/faculties and have been consulted before making these changes.

#### B. RATIONALE

*Please provide a rationale for the proposed change(s).*

Based on the Association for Computing Machinery (ACM) curriculum guidelines, students in B.Sc. (Honours Software Engineering specialization) are required to take 4 of the listed 6 courses in item (c) of the current calendar from four areas (i) Dynamics and psychology\*, (ii) Communication Skill, (iii) Professionalism, and (iv) Business and Management. This is also consistent with a general practice by other neighboring universities (Western, Waterloo, McMaster, Toronto, Queens and Wayne State).

In current from, the listed courses are not categorized and student may not take courses in each of the four categories. In addition, students of this program often find the given choices to be very restrictive (4 out of 6 courses). This change will provide students more choices and will also require them to take at least one course from each of the four categories. Students have the option to take additional courses to fulfil requirements listed in (d) and (e).

*\*Note: Dynamics and Psychology is a classification used by the Association for Computing Machinery (ACM) – a CS professional organization. Essentially it means to develop skills in collaborative environments since Computer Science professionals may work as part of bigger teams and groups from various different backgrounds, skill level, etc.*

# PROGRAM DEVELOPMENT COMMITTEE

## MINOR PROGRAM CHANGES

### FORM C

#### C. RESOURCES

##### C.1 Available Faculty and Staff Resources (QAF sections 2.1.7, 2.1.8, 2.1.9 and 2.1.10)

*Describe, in general terms, all faculty and staff resources (e.g., administrative, teaching, supervision) from all affected areas/departments currently available and actively committed to support the program change(s). Please do not name specific individuals.*

No change.

##### C.1.1 Faculty Expertise in Support of the Revised Program

*Provide an assessment of faculty expertise available and committed to actively support the revised program. Please do not name specific individuals.*

No change.

##### C.1.2 Extent of Reliance on Adjunct, Limited-term, and Sessional Faculty in Delivering the Revised Program

*Describe the area's expected reliance on, and the role of adjunct, limited-term, and sessional faculty in delivering the revised program.*

N/A

##### C.1.3 Graduate Faculty Qualifications and Supervisory Loads (FOR GRADUATE PROGRAMS ONLY)

*Explain how supervisory loads will be distributed, and describe the qualifications and appointment status of faculty who will provide instruction and supervision in the revised program.*

N/A

##### C.1.4 Financial Assistance for Graduate Students (where appropriate) (FOR GRADUATE PROGRAMS ONLY)

*Where appropriate to the revised program, provide evidence that financial assistance for graduate students will be sufficient to ensure adequate quality and numbers of students.*

N/A

#### C.2 Other Available Resources (Ministry sections 3 and 4)

*Provide evidence that there are adequate resources available and committed to the revised program to sustain the quality of scholarship produced by undergraduate students as well as graduate students' scholarship and research activities, including for example:*

- staff support, library, teaching and learning support, student support services, space, equipment, facilities, GA/TA

N/A

#### C.3 Resource Implications for Other Campus Units (Ministry sections 3 and 4)

*Describe the reliance of the proposed program revisions on existing resources from other campus units, including for example:*

- existing courses, equipment or facilities outside the proposer's control, external resources requiring maintenance or upgrading using external resources

*Provide relevant details.*

None

#### C.4 Anticipated New Resources (QAF sections 2.1.7, 2.1.8 and 2.1.9; Ministry section 4)

*List all anticipated new resources originating from within the area, department or faculty (external grants, donations, government grants, etc.) and committed to supporting the revisions to this program.*

None

# PROGRAM DEVELOPMENT COMMITTEE

## MINOR PROGRAM CHANGES

### FORM C

#### C.5 Planned Reallocation of Resources and Cost-Savings (QAF section 2.1.7 and 2.1.9; Ministry section 4)

*Describe all opportunities for internal reallocation of resources and cost savings identified and pursued by the area/department in support of the revisions to this program. (e.g., streamlining existing programs and courses, deleting courses, etc.).*

None

#### C.6 Additional Resources Required – Resources Requested (QAF section 2.1.7 and 2.1.9)

*Describe all **additional faculty, staff and GA/TA resources** (in all affected areas and departments) required to run the revised program.*

None

<b>Faculty:</b>	N/A
<b>Staff:</b>	N/A
<b>GA/TAs:</b>	N/A

#### C.6.1 Additional Institutional Resources and Services Required by all Affected Areas or Departments

*Describe all **additional institutional resources and services** required by all affected areas or departments to run the revised program, including library, teaching and learning support services, student support services, space and facilities, and equipment and its maintenance.*

None

<b>Library Resources and Services:</b>	N/A
<b>Teaching and Learning Support:</b>	N/A
<b>Student Support Services:</b>	N/A
<b>Space and Facilities:</b>	N/A
<b>Equipment (and Maintenance):</b>	N/A

University of Windsor  
Program Development Committee

\*5.2 Languages, Literatures and Cultures: Modern Languages Program – Minor Program Changes (PDC Form C)

Item for: Approval

**MOTION:** That the degree requirements for the Honours Modern Languages and Second Language Education be changed according to the program/course change forms\*.

*\*Subject to approval of the expenditures required.*

**Rationale/Approvals**

- The proposed changes have been approved the Languages, Literatures and Cultures Council and the Faculty of Arts, Humanities and Social Sciences Coordinating Council.
- *See attached.*

**PROGRAM DEVELOPMENT COMMITTEE**  
**MINOR PROGRAM CHANGES**  
**FORM C**

<b>TITLE OF PROGRAM(S)/CERTIFICATE(S):</b>	Honours Modern Languages and Second Language Education
<b>DEPARTMENT(S)/SCHOOL(S):</b>	Department of Languages, Literatures and Cultures - Modern Languages Program
<b>FACULTY(IES):</b>	Faculty of Arts, Humanities and Social Sciences

<b>Proposed change(s) effective as of*</b> [Fall, Winter, Spring]: *(subject to timely and clear submission)	<b>Fall 2018</b>
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**A.1 PROGRAM REQUIREMENT CHANGES**

*Please provide the current program requirements and the proposed new program requirements by cutting and pasting from the current undergraduate or graduate web calendar ([www.uwindsor.ca/calendars](http://www.uwindsor.ca/calendars)) and clearly marking deletions with strikethrough (~~strikethrough~~) and additions/new information with **bolding** and underlining.*

*Example:*

Degree requirements: 00-100, ~~00-101~~, 00-110, 00-210, 00-310, 00-410, plus three additional courses at the 300-level or 400-level.

**Honours Modern Languages and Second Language Education\***

**Degree Requirements:**

**\*NOTE:** Students who successfully complete **the requirements under (c) as part of the successful completion of** complete this degree are eligible for the Certificate in Second Language Education upon application at graduation.

*Total courses: forty*

(a) 07-120, 07-220, 07-137, 07-237, 07-337; 07-437

(b) 07-320, 07-321, 07-420;

(c) **Language stream:** (i) six language training courses in one language option area from the following: 15-102, 15-202, 15-300, 15-301, 15-400, 15-401 or 21-102, 21-202, 21-300, 21-301, 21-400, 21-401 or 23-102, 23-202, 23-300, 23-301, 23-400, 23-401 (The level of required courses depends on a placement test. The 300-level language training courses are compulsory for all students)\*\*

(ii)-(d) two of the following culture and civilization courses in the chosen language option area: 15-260 and 15-261; or 21-260 and 21-261; or 23-260 and 23-261;

(iii)-(e)-three additional courses from: 07-202, 07-203, 07-235, 15-248, 15-260, 15-261, 21-248, 21-260, 21-261, 21-356, 23-248, 23-260, 23-261

**OR**

(d) **Intercultural stream: 15-260, 15-261, 21-260, 21-261, 23-260, 23-261; 06-120, 08-261; 15-248, 21-248, 23-248; 07-4xx (2 semester, 6.0 credit Practicum in intercultural studies – to be developed)**

(e) (f) two courses from Social Sciences;

(f) (g) two courses from Arts or Science;

(g) (h) two courses from any area of study, excluding Arts.

(h) (i) 01-150, 01-151;

(i) (j) **Language stream:** seven more courses from any area of study, including Modern Languages; **OR Intercultural stream: five more courses from any area of study, including Modern Languages;**

(j) (k) five courses from any area of study, excluding Modern Languages;

# PROGRAM DEVELOPMENT COMMITTEE

## MINOR PROGRAM CHANGES

### FORM C

\*\* Students beginning the program at an advanced level must adhere to the following sequence of priorities in selecting their courses to replace the standard 6 language training course requirement.

- (1) Complete all available courses taught in the target language;
- (2) Complete two courses in another language offered by Languages, Literatures and Cultures in which the student has not had prior university-level training including: Arabic, French, German, Italian, Japanese, Ojibwe and Spanish;
- (3) Complete additional courses in the chosen language option area.
- (4) Complete additional courses in Modern Languages

All courses must be selected in consultation with the program advisor.

*Courses used to calculate the major average are: courses listed under requirements (a) to (d) (e), and any courses taken in the major area(s) of study.*

#### A.2 MINOR COURSE CHANGES REQUIRING ADDITIONAL RESOURCES OR AFFECTING DEGREE REQUIREMENTS

*If this is a minor course and calendar change (usually noted on a Form E) requiring additional resources or affecting degree requirements, please provide the current course information and the proposed new course information by cutting and pasting from the current undergraduate or graduate web calendar and clearly marking deletions with strikethrough (strikethrough) and additions/new information with **bolding** and underlining.*

*Examples of minor course changes include: deleting courses, course description changes, pre/anti/co- requisite changes, contact hour/lab requirement changes, course title changes, renumbering courses, and/or cross-listing courses. Minor course calendar changes, which do not require additional resources or do not affect degree requirements, should be submitted on a Form E.*

n/a

#### B. RATIONALE

*Please provide a rationale for the proposed change(s).*

The revision provides a separate option for students in the program. The proposal is for an agile, omni-comprehensive area of concentration enabling student, who select for this option, to focus more on multi and intercultural issues involving also the Islamic world rather than mere language instruction. This new option also will be part a proposed concurrent program with the Bachelor of Education degree.

#### C. RESOURCES

##### C.1 Available Faculty and Staff Resources (QAF sections 2.1.7, 2.1.8, 2.1.9 and 2.1.10)

*Describe, in general terms, all faculty and staff resources (e.g., administrative, teaching, supervision) from all affected areas/departments currently available and actively committed to support the program change(s). Please do not name specific individuals.*

No new courses are required for this revisions. No additional faculty or staff resources are required. Faculty members affected will teach exactly the same courses.

##### C.1.1 Faculty Expertise in Support of the Revised Program

*Provide an assessment of faculty expertise available and committed to actively support the revised program. Please do not name specific individuals.*

No new expertise is needed to sustain the new stream.

# PROGRAM DEVELOPMENT COMMITTEE

## MINOR PROGRAM CHANGES

### FORM C

#### C.1.2 Extent of Reliance on Adjunct, Limited-term, and Sessional Faculty in Delivering the Revised Program

*Describe the area's expected reliance on, and the role of adjunct, limited-term, and sessional faculty in delivering the revised program.*

The program will rely solely on full-time faculty members.

#### C.1.3 Graduate Faculty Qualifications and Supervisory Loads (FOR GRADUATE PROGRAMS ONLY)

*Explain how supervisory loads will be distributed, and describe the qualifications and appointment status of faculty who will provide instruction and supervision in the revised program.*

None

#### C.1.4 Financial Assistance for Graduate Students (where appropriate) (FOR GRADUATE PROGRAMS ONLY)

*Where appropriate to the revised program, provide evidence that financial assistance for graduate students will be sufficient to ensure adequate quality and numbers of students.*

None

#### C.2 Other Available Resources (Ministry sections 3 and 4)

*Provide evidence that there are adequate resources available and committed to the revised program to sustain the quality of scholarship produced by undergraduate students as well as graduate students' scholarship and research activities, including for example:*

- staff support, library, teaching and learning support, student support services, space, equipment, facilities, GA/TA

The new stream relies completely on existing resources.

#### C.3 Resource Implications for Other Campus Units (Ministry sections 3 and 4)

*Describe the reliance of the proposed program revisions on existing resources from other campus units, including for example:*

- existing courses, equipment or facilities outside the proposer's control, external resources requiring maintenance or upgrading using external resources

*Provide relevant details.*

None

#### C.4 Anticipated New Resources (QAF sections 2.1.7, 2.1.8 and 2.1.9; Ministry section 4)

*List all **anticipated new resources** originating from within the area, department or faculty (external grants, donations, government grants, etc.) and committed to supporting the revisions to this program.*

None

#### C.5 Planned Reallocation of Resources and Cost-Savings (QAF section 2.1.7 and 2.1.9; Ministry section 4)

*Describe all opportunities for internal reallocation of resources and cost savings identified and pursued by the area/department in support of the revisions to this program. (e.g., streamlining existing programs and courses, deleting courses, etc.).*

None

**PROGRAM DEVELOPMENT COMMITTEE**  
**MINOR PROGRAM CHANGES**  
**FORM C**

**C.6 Additional Resources Required – Resources Requested (QAF section 2.1.7 and 2.1.9)**

*Describe all additional faculty, staff and GA/TA resources (in all affected areas and departments) required to run the revised program.*

<b>Faculty:</b>	none
<b>Staff:</b>	none
<b>GA/TAs:</b>	none

**C.6.1 Additional Institutional Resources and Services Required by all Affected Areas or Departments**

*Describe all additional institutional resources and services required by all affected areas or departments to run the revised program, including library, teaching and learning support services, student support services, space and facilities, and equipment and its maintenance.*

<b>Library Resources and Services:</b>	No additional resources or services needed
<b>Teaching and Learning Support:</b>	No additional resources or services needed
<b>Student Support Services:</b>	No additional resources or services needed
<b>Space and Facilities:</b>	No additional resources or services needed
<b>Equipment (and Maintenance):</b>	No additional resources or services needed

**University of Windsor  
Program Development Committee**

\*5.3 **Liberal Arts and Professional Studies: Aeronautics Leadership – Minor Program Changes ( Form C)**

Item for: **Approval**

**MOTION:** **That the changes to the degree requirements for the Liberal Arts and Professional Studies: Aeronautics Leadership be approved, according to the program/course change forms\*.**

*\*Subject to approval of the expenditures required.*

**Rationale/Approvals**

- The proposed changes have been approved the Faculty of Arts, Humanities and Social Sciences Coordinating Council.
- *See attached.*

**PROGRAM DEVELOPMENT COMMITTEE**  
**MINOR PROGRAM CHANGES**  
**FORM C**

**INSTRUCTIONS ARE PROVIDED IN SHADED AREAS. DO NOT WRITE IN SHADED AREAS.**  
**ALL FIELDS MUST BE COMPLETED, MARKING N/A WHERE NOT APPLICABLE.**

University policy states that students may follow the academic rules and program regulations set out in the calendar of the term in which they were first admitted to a program or any subsequent calendar. In light of this, students already in the program must be permitted to complete the degree requirements according to the calendar of the term in which they enrolled (or any subsequent calendar). If courses are no longer available, appropriate substitutes must be made.

<b>TITLE OF PROGRAM(S)/CERTIFICATE(S):</b>	Liberal Arts and Professional Studies: Aeronautics Leadership
<b>DEPARTMENT(S)/SCHOOL(S):</b>	Aeronautics Leadership
<b>FACULTY(IES):</b>	FAHSS

<b>Proposed change(s) effective as of*</b> [Fall, Winter, Spring]: <i>*(subject to timely and clear submission)</i>	Fall 2018
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#### A.1 PROGRAM REQUIREMENT CHANGES

*Please provide the current program requirements and the proposed new program requirements by cutting and pasting from the current undergraduate or graduate web calendar ([www.uwindsor.ca/calendars](http://www.uwindsor.ca/calendars)) and clearly marking deletions with strikethrough (**strikethrough**) and additions/new information with **bolding and underlining**.*

*Example:*

Degree requirements: 00-100, ~~00-101~~, 00-110, 00-210, 00-310, 00-410, plus three additional courses at the **300-level or 400-level**.

Honours in Liberal Arts and Professional Studies: Aeronautics Leadership  
Flight Option

*Total courses: 40*

*Major requirements:*

a) 14 courses from Arts, Humanities and Social Sciences, including 6 of the following Leadership courses

01-120 Understanding the Contemporary World (double credit)

**01-3010/02-310** Ways of Doing

**01-210/02-210** Ways of Knowing

01-209 Ethics in the Professions

24-210/40-210 Speech Communication to Inform

**24-272 The Creative Process**

02-350/48-350 Practical Strategies for Social Change: Intervening to Prevent Sexual Assault

27-385 Green Corridor (Prerequisites: at least Semester 5 and in good standing)

**01-400/02-400** Mentorship and Learning

02-450 Practicum in Social Change (Prerequisite: 02-350/48-350)

**80-400** Diversity and Inclusion in the Learning Organization

**80-410** Learning-Centered Teaching: Planning, Delivery, Assessment and Evaluation

**80-415** Learning Organizations: Management and Leadership

**80-420** Theories of Individual and Collective Learning

# PROGRAM DEVELOPMENT COMMITTEE

## MINOR PROGRAM CHANGES

### FORM C

b) 3 courses from Business

75-100 Introduction to Business

71-243 Human Resources Management (Prerequisite 75-100)

71-452 Management of Organizational Health, Wellness and Safety (Prerequisite: 71-243)

c) 4 courses from Science, Engineering, or Computer Science

d) 8 courses in Flight Training

02-197 Practicum in Professional Development (double credit)

02-297 Practicum in Professional Development (double credit)

02-397 Practicum in Professional Development (double credit)

02-497 Practicum in Professional Development (double credit)

*Other requirements:*

01-150 Effective Writing I

01-151 Effective Writing II

9 courses from any area of study

#### A.2 MINOR COURSE CHANGES REQUIRING ADDITIONAL RESOURCES OR AFFECTING DEGREE REQUIREMENTS

*If this is a minor course and calendar change (usually noted on a Form E) requiring additional resources or affecting degree requirements, please provide the current course information and the proposed new course information by cutting and pasting from the current undergraduate or graduate web calendar and clearly marking deletions with **strikethrough** and additions/new information with **bolding and underlining**.*

*Examples of minor course changes include: deleting courses, course description changes, pre/anti/co- requisite changes, contact hour/lab requirement changes, course title changes, renumbering courses, and/or cross-listing courses. Minor course calendar changes, which do not require additional resources or do not affect degree requirements, should be submitted on a Form E.*

N/A

#### B. RATIONALE

*Please provide a rationale for the proposed change(s).*

The main changes here increase the number of leadership course options included in the Aeronautics Leadership program. This program promises students a leadership infused Liberal Arts education, along with flight training. This change increases the number of course options, giving students more courses to choose from in which they can gain leadership knowledge and/or experience. Some of the courses on the list were being offered sporadically, making it a challenge for students to meet the required six courses by the end of the degree. Increasing the number of courses available to Aeronautics students means there are less challenges for students in meeting the required six leadership courses.

There are also a couple of editorial changes, including cross-listed numbering and changing incorrect course numbers.

All newly added Leadership courses are already existing courses and therefore there are no additional resources required. The number of students in each year of the Aeronautics Leadership Program is small enough (15-20 students) that the impact on any one of the optional courses will be minimal.

# PROGRAM DEVELOPMENT COMMITTEE

## MINOR PROGRAM CHANGES

### FORM C

#### C. RESOURCES

##### C.1 Available Faculty and Staff Resources (QAF sections 2.1.7, 2.1.8, 2.1.9 and 2.1.10)

*Describe, in general terms, all faculty and staff resources (e.g., administrative, teaching, supervision) from all affected areas/departments currently available and actively committed to support the program change(s). Please do not name specific individuals.*

N/A

##### C.1.1 Faculty Expertise in Support of the Revised Program

*Provide an assessment of faculty expertise available and committed to actively support the revised program. Please do not name specific individuals.*

N/A

##### C.1.2 Extent of Reliance on Adjunct, Limited-term, and Sessional Faculty in Delivering the Revised Program

*Describe the area's expected reliance on, and the role of adjunct, limited-term, and sessional faculty in delivering the revised program.*

N/A

##### C.1.3 Graduate Faculty Qualifications and Supervisory Loads (FOR GRADUATE PROGRAMS ONLY)

*Explain how supervisory loads will be distributed, and describe the qualifications and appointment status of faculty who will provide instruction and supervision in the revised program.*

N/A

##### C.1.4 Financial Assistance for Graduate Students (where appropriate) (FOR GRADUATE PROGRAMS ONLY)

*Where appropriate to the revised program, provide evidence that financial assistance for graduate students will be sufficient to ensure adequate quality and numbers of students.*

N/A

#### C.2 Other Available Resources (Ministry sections 3 and 4)

*Provide evidence that there are adequate resources available and committed to the revised program to sustain the quality of scholarship produced by undergraduate students as well as graduate students' scholarship and research activities, including for example:*

- staff support, library, teaching and learning support, student support services, space, equipment, facilities. GA/TA

N/A

#### C.3 Resource Implications for Other Campus Units (Ministry sections 3 and 4)

*Describe the reliance of the proposed program revisions on existing resources from other campus units, including for example: existing courses, equipment or facilities outside the proposer's control, external resources requiring maintenance or upgrading using external resources*

*Provide relevant details.*

The number of students in each year of the Aeronautics Leadership Program is small enough (15-20 students) that the impact on any one of the optional courses will be minimal.

#### C.4 Anticipated New Resources (QAF sections 2.1.7, 2.1.8 and 2.1.9; Ministry section 4)

*List all anticipated new resources originating from within the area, department or faculty (external grants, donations, government grants, etc.) and committed to supporting the revisions to this program.*

N/A

**PROGRAM DEVELOPMENT COMMITTEE**  
**MINOR PROGRAM CHANGES**  
**FORM C**

**C.5 Planned Reallocation of Resources and Cost-Savings (QAF section 2.1.7 and 2.1.9; Ministry section 4)**

*Describe all opportunities for internal reallocation of resources and cost savings identified and pursued by the area/department in support of the revisions to this program. (e.g., streamlining existing programs and courses, deleting courses, etc.).*

N/A

**C.6 Additional Resources Required – Resources Requested (QAF section 2.1.7 and 2.1.9)**

*Describe all **additional faculty, staff and GA/TA resources** (in all affected areas and departments) required to run the revised program.*

<b>Faculty:</b>	N/A
<b>Staff:</b>	N/A
<b>GA/TAs:</b>	N/A

**C.6.1 Additional Institutional Resources and Services Required by all Affected Areas or Departments**

*Describe all **additional institutional resources and services** required by all affected areas or departments to run the revised program, including library, teaching and learning support services, student support services, space and facilities, and equipment and its maintenance.*

<b>Library Resources and Services:</b>	N/A
<b>Teaching and Learning Support:</b>	N/A
<b>Student Support Services:</b>	N/A
<b>Space and Facilities:</b>	N/A
<b>Equipment (and Maintenance):</b>	N/A

## University of Windsor Program Development Committee

**\*5.4 Concurrent Political Science BA (General)/Bachelor of Education (PDC Form C2)**

Item for: **Approval**

**MOTION:** That the Concurrent Political Science BA (General)/Bachelor of Education be approved, according to the program/course change forms\*.

*\*Subject to approval of the expenditures required.*

## Rationale/Approvals

- The proposed changes have been approved the Department of Political Science, the Faculty of Education Council and the Faculty of Arts, Humanities and Social Sciences Coordinating Council.
  - *See attached.*

**PROGRAM DEVELOPMENT COMMITTEE**  
**COMBINED PROGRAM OR CONCURRENT OFFERING**  
**(from existing programs)**  
**FORM C2**

<b>TITLE OF PROGRAM/CERTIFICATE:</b>	Political Science B.A. (General)/B.Ed.
<b>DEPARTMENT(S)/SCHOOL(S):</b>	Political Science/Education
<b>FACULTY(IES):</b>	FAHSS and Education

<b>Proposed combined program or concurrent offering to be effective as of* [Fall, Winter, Spring]:</b> <i>*(subject to timely and clear submission)</i>	Fall 2019
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**1. RATIONALE**

*Please provide a rationale for the proposed combined program or concurrent offering.*

*NOTE: This form is for Combining programs that are created from two existing standalone programs (e.g., creating a Combined Honours in X and Y, where Honours X and Honours Y are established programs), or for offering two existing programs concurrently. Where one or more of the programs proposed to be combined or run concurrently are not currently established, a PDC Form A – New Program Proposal – is required.*

The Concurrent Political Science BA/Bachelor of Education Program is offered jointly over five years by Political Science and the Faculty of Education. The program prepares individuals to teach with a particular emphasis on teaching Politics, Law and Global Studies at the intermediate and senior levels (grades 7 to 12), with a minimum of 12 credits in Political Science and, normally, 6 credits in a second teachable.

Teachables: Intermediate Senior candidates choose two teaching subjects. Applicants must have at least ten semester undergraduate courses (30 semester hours) in the first teachable subject (Social Sciences-General) and normally six semester undergraduate courses (18 semester hours) in the second teachable subject. Students should consult the Faculty of Education website for a list of other teachables and combinations of permitted second teachables. Students should also seek Academic Advising from the department of the second teachable to ensure that there are sufficient courses available to non-majors.

Graduates of this program will receive two degrees and will acquire the necessary skills and knowledge for teaching Politics in the English language school system (Public or Roman Catholic) and fulfill the requirements for recommendation for certification to the Ontario College of Teachers. It offers students the opportunity to begin working towards teaching certification early in their academic careers. Students can qualify for the General Bachelor of Arts (Political Science) degree while concurrently studying education and practice teaching in schools. Practice Teaching begins in Year One of the program. All students must see an advisor in the Department of Political Science and in the Faculty of Education on a regular basis to discuss course selection and academic progress.

**A. Admission Details**

**A.1 Admission Requirements (QAF section 2.1.2)**

*Describe admission requirements for the Combined program or Concurrent offering:*

- *program-specific admission requirements,*
- *selection criteria,*
- *credit transfer,*
- *arrangements for exemptions or special entry, and*
- *alternative admission requirements, if any, for admission into the program, such as minimum average, additional language requirements or portfolios, recognition of prior work or learning experience (and how this*

**PROGRAM DEVELOPMENT COMMITTEE**  
**COMBINED PROGRAM OR CONCURRENT OFFERING**  
**(from existing programs)**  
**FORM C2**

*will be assessed), etc. Do the admission requirements differ from those of the existing standalone programs? If so, why?*

**APPLICATION AND ADMISSION**

Admission is to first-year only with a minimum of 75%. Applicants from high school must present six Grade 12 "U" or "M" courses including Grade 12 "U" English. Admission to this program is limited.

**PROGRAM REQUIREMENTS**

**CONCURRENT BACHELOR OF ARTS (POLITICAL SCIENCE)**

Total course equivalents: Thirty

- (a) 45-100, 45-130 and 45-160;
- (b) nine additional courses Political Science including at least three at the 300-level or above. (Note: students interested in switching to Honours Political Science should take 02-250, 45-275, and one of 45-251 or 45-252
- (c) two courses from Arts;
- (d) two courses from Languages or Science;
- (e) two courses from any area of study, excluding Social Sciences.
- (f) 01-150, 01-151;
- (g) five courses from any area of study, including Political Science;
- (h) five courses from any area of study, excluding Political Science.

Courses used to calculate the major average are: courses listed under requirements (a) and (b), and any courses taken in the major area(s) of study.

As indicated on the Political Science and Faculty of Education websites, Law and the Global Studies teachable subjects include the following courses:

Law - two of: 45-214, 45-314, 45-363, 45-470

Global Studies - two of: 45-232, 45-233, 45-235, 45-241, 45-244, 45-245, 45-249, 45-260, 45-261, 45-264, 45-268; two of: 45-346, 45-354, 45-355, 45-356, 45-360, 45-361, 45-365, 45-367, 45-372, 45-431, 45-434, 45-464, 45-465, 45-496.

**BACHELOR OF EDUCATION**

Total course equivalents: Twenty

**All students are required to complete the requirements of the Bachelor of Arts: Political Science degree program (General), in addition to the following Education courses: 80-199, 80-299, 80-399, 80-201 (1.5), 80-202 (1.5), 80-203 (3.0), 80-204 (3.0), 80-206 (1.5), 80-207 (3.0), 80-208 (1.5), 80-209 (1.5), 80-210 (1.5), 80-231 (1.5), 80-331 (1.5), 80-332 (3.0) 80-333 (1.5), 80-334 (1.5), 80-335 (1.5), 80-336 (1.5), 80-337 (1.5), 80-338 (1.5), 80-339 (1.5), 80-431 (1.5), 80-377 (Social Sciences-General) (6.0), plus one additional teachable course selected from 80-356 (6.0), 80-367 (6.0), 80-368 (6.0), 80-359 (6.0), 80-358 (6.0), 80-352 (6.0); and, 80-499 (12.0) Students planning on teaching in the Roman Catholic School Board must also take 80-200 (1.5).**

Courses used to calculate the Education major average are: All required Education courses.

\*A student may complete the requirements for an honours degree in Political Science by completing additional courses during the summer term and/or completing a Sixth Year. See Undergraduate Calendar for course requirements for the Honours BA in Political Science.

**PROGRAM DEVELOPMENT COMMITTEE**  
**COMBINED PROGRAM OR CONCURRENT OFFERING**  
**(from existing programs)**  
**FORM C2**

STANDING REQUIRED FOR CONTINUATION IN THE CONCURRENT PROGRAM IS TWO-FOLD:

Standing Required for Continuation in the General BA in Political Science

60% major average and 60% cumulative average in the General BA in Political Science.

Standing Required for Continuation in the B.Ed. degree

Teacher Candidates, who obtain three or more final grades below a 60-62.9% in any Education course in the program, or one or more final grades of 0-49.9% in any course in the Education program, over the duration of the program, will have failed the Bachelor of Education (BEd) Degree and will not be eligible for recommendation to the Ontario College of Teachers for certification. In all such cases, upon a cumulative academic record as defined above, Teacher Candidates will be required to meet with the Associate Dean Pre-Service immediately to review their academic standing, which may lead to the requirement to withdraw from the program. Teacher Candidates may be provided with an opportunity to return to the Faculty of Education to fulfill outstanding requirements for the completion of the BEd Degree. Conditions of reinstatement are the sole prerogative of the Dean or her/his designate.

**A.2 Admission Requirements and Attainment of Learning Outcomes (QAF section 2.1.2)**

*Demonstrate that admission requirements for the Combined program or Concurrent offering are sufficient to prepare students for successful attainment of the intended learning outcomes (degree level expectations) established for completion of the Combined program or Concurrent offering.*

Admission to both degrees are equivalent to or higher than expectations to the stand-alone degrees.

**B. Program Details**

**B.1 Program Curriculum Structure/Program of Study (QAF sections 2.1.4 and 2.1.10)**

*Provide evidence of a program structure and faculty research that will ensure the intellectual quality of the student experience.*

**For graduate programs:** provide evidence that each graduate student in the Combined program or Concurrent offering is required to take a minimum of two-thirds of the course requirements from among graduate-level courses. Include course requirements with course numbers and course titles.

**For Combined programs:** the degree requirements should be largely the same as those specified for the standalone programs.

**For Concurrent offerings:** generally, the degree requirements for the two programs being offered concurrently should be the same as those specified for the standalone programs.

*Through combined programs or concurrent program offerings, students complete two existing programs in an integrated way. If there are changes to the degree programs, these should be minor and supported by a strong rationale. Significant changes will require the submission of a PDC Form B – Major Program Change Form or a PDC Form A – New Program Proposal Form.*

*If there are changes, identify them in BOLD and STRIKETHROUGH.*

Requirements are the same as the standalone programs. (See A1.)

**Provide requirements for the Co-op/Experiential Learning Component AND a description of how the program requirements differ for students who complete the experiential learning option and those who opt not to (if applicable). [If the co-op/experiential learning component is new (not part of the existing stand-alone program), a PDC Form B is required]:** n/a

**PROGRAM DEVELOPMENT COMMITTEE**  
**COMBINED PROGRAM OR CONCURRENT OFFERING**  
**(from existing programs)**  
**FORM C2**

**Explain how credit will be awarded for the experiential learning component (length of component, credit weighting, etc.):** n/a

**Guidelines for experiential learning/co-op work term reports:**

n/a

**General length of experiential learning/co-op work term:** n/a

**Is the completion of the experiential learning/co-op component a requirement of the program?** n/a

**B.1 Program Curriculum Structure/Program of Study (QAF sections 2.1.4 and 2.1.10) For Concurrent Offerings**

*Generally, the degree requirements for the two programs being offered concurrently should be unchanged. Through concurrent program offerings, students complete two existing degree programs in an integrated way. If there are changes to the degree programs, these should be minor and be supported by a strong rationale. Significant changes will require the submission of a Major Program Change Form or New Program Proposal Form.*

**Changes to degree requirements for one or both programs:**

n/a

**Rationale for change:** No change

**B.1.1 Suggested Program Sequencing**

*Provide suggested program sequencing for each year of the Combined program or Concurrent Offering, ensuring that all pre-requisites are met in the sequencing.*

*Where applicable, provide work/study/placement sequencing for each year of the experiential learning/co-op version of the Combined program or Concurrent offering. Please ensure that all pre-requisites are met in the sequencing.*

*For Co-op programs: The proposed work/study sequence or alternative arrangement should allow for year-round availability of students for employers (if appropriate) and, wherever possible, should meet the guidelines for co-operative education as set out by the Canadian Association for Co-operative Education (see Policy on Co-op Programs).*

**First Year:** Ten courses from the General BA in Political Science, plus Education 80-199 'Community Service Education' (50 hours over two semesters)

**Second Year:** Ten courses towards the General BA in Political Science, plus Education 80-299 'Teaching and Learning Part I' (50 hours over two semesters)

**Third Year:** In the third year, students will take the entire Year 1 of the BEd program.

**Fourth Year:** Ten Courses towards the General BA in Political Science – completing the requirements of a 3-year general degree in Political Science, plus Education 80-399 'Teaching and Learning Part II' (50 hours over two semesters)

**Fifth Year:** In the fifth year, students will take the entire Year 2 of the BEd program.

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**B.1.2 Standing Required for Continuation in Program**

*Minimum average requirements for continuation in the Combined program or each of the programs in the Concurrent offering.*

*Must conform to the regulations for standing required for continuation in the program described in the undergraduate and graduate calendars [www.uwindsor.ca/calendars].*

*Specify standing required for continuation in the experiential learning option or co-op option, where applicable.*

STANDING REQUIRED FOR CONTINUATION IN THE CONCURRENT PROGRAM IS TWO-FOLD:

Standing Required for Continuation in the General BA in Political Science

60% major average and 60% cumulative average in the General BA in Political Science.

Standing Required for Continuation in the B.Ed. degree

Teacher Candidates, who obtain three or more final grades below a 60-62.9% in any Education course in the program, or one or more final grades of 0-49.9% in any course in the Education program, over the duration of the program, will have failed the Bachelor of Education (BEd) Degree and will not be eligible for recommendation to the Ontario College of Teachers for certification. In all such cases, upon a cumulative academic record as defined above, Teacher Candidates will be required to meet with the Associate Dean Pre-Service immediately to review their academic standing, which may lead to the requirement to withdraw from the program. Teacher Candidates may be provided with an opportunity to return to the Faculty of Education to fulfill outstanding requirements for the completion of the BEd Degree. Conditions of reinstatement are the sole prerogative of the Dean or her/his designate.

**B.1.3 Standing Required for Graduation**

*Minimum average requirement to graduate in the Combined program or each of the programs in the Concurrent offering.*

*Must conform to the regulations for standing required for continuation in the program described in the undergraduate and graduate calendars [www.uwindsor.ca/calendars].*

*Specify the standing required for graduation in the experiential learning option or co-op option, where applicable.*

See B.1.2 The student must meet the requirements for both programs. Failure to do so will require withdrawal from the concurrent program.

**B.2 For Graduate Program ONLY (QAF sections 2.1.3 and 3; Senate Policy on Co-op Programs):**

**B.2.1 Normal Duration for Completion**

*Provide a clear rationale for program length that ensures that the requirements of the Combined program or Concurrent offering can be reasonably completed within the proposed time period.*

n/a

**B.2.2 Program Research Requirements**

*For research-focused graduate programs, provide a clear indication of the nature and suitability of the major research requirements for completion of the Combined program or Concurrent offering.*

n/a

**B.3 LEARNING OUTCOMES (Degree Level Expectations) (QAF section 2.1.1, 2.1.3, and 2.1.6)**

**COMPLETE THIS TABLE FOR UNDERGRADUATE DEGREE PROGRAMS**

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*In the following table, provide the specific learning outcomes (degree level expectations) that constitute the overall goals of the Combined program or Concurrent offering (i.e., the intended skills and qualities of graduates of this program). Link each learning outcome to the Characteristics of a University of Windsor Graduate” by listing them in the appropriate rows.*

*A learning outcome may link to more than one of the specified Characteristics of a University of Windsor Graduate. All University of Windsor programs should produce graduates able to demonstrate each of the nine characteristics. Program design must demonstrate how students acquire all these characteristics. All individual courses should contribute to the development of one or more of these traits: a program in its entirety must demonstrate how students meet all of these outcomes through the complete program of coursework.*

*Proposers are strongly encouraged to contact the Centre for Teaching and Learning for assistance with the articulation of learning outcomes (degree level expectations).*

**For Combined Programs and Concurrent Offerings:** The program learning outcomes would include the outcomes for the two standalone programs with a few additional outcomes to reflect the benefits of pursuing the two disciplines in an integrated manner. [For learning outcome A, the integration of knowledge can be within a program and between the two programs.]

**For programs with an Experiential Learning or Co-op Option:** Include learning outcomes for the program with a few additional outcomes highlighted to reflect the benefits of pursuing the experiential learning/co-op option.

Program Learning Outcomes (Degree Level Expectations)	Characteristics of a University of Windsor Graduate	COU-approved Undergraduate Degree Level Expectations
<p><i>This is a sentence completion exercise. Please provide a minimum of 1 learning outcome for each of the boxes associated with a graduate attribute.</i></p> <p><u>At the end of this program, the successful student will know and be able to:</u></p>	<p><u>A UWindsor graduate will have the ability to demonstrate:</u></p>	
<p>A. Create and maintain inclusive classroom environments that engage and facilitate the learning of all students</p> <p>Design lesson and unit plans with clear curricular and pedagogical goals, and with appropriate assessment and evaluation metrics</p> <p>Apply their knowledge of subject-matter in Ministry of Education curriculum documents in the candidate's division (PJ/JI/IS) and curriculum specialization</p> <p>Describe and explain major issues and phenomena of political science, including but not limited to: political power, political socialization, political influence, political relationships between elected officials and political institutions, political actors and institutions of Canada's three levels of government Canadian public policy; the unique characteristics of public sector</p>	<p>A. the acquisition, application and integration of knowledge</p>	<p>1. Depth and Breadth of Knowledge</p> <p>2. Knowledge of Methodologies</p> <p>3. Application of Knowledge</p> <p>5. Awareness of Limits of Knowledge</p>

**PROGRAM DEVELOPMENT COMMITTEE**  
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Program Learning Outcomes (Degree Level Expectations)	Characteristics of a University of Windsor Graduate	COU-approved Undergraduate Degree Level Expectations
<p><i>This is a sentence completion exercise. Please provide a minimum of 1 learning outcome for each of the boxes associated with a graduate attribute.</i></p> <p><u>At the end of this program, the successful student will know and be able to:</u></p>	<p><u>A UWindsor graduate will have the ability to demonstrate:</u></p>	
<p>organizations and practices from those of other sectors of the economy</p> <p>Critically analyze issues including but not limited to: political power, the modern domestic and international political environment and the pressures bearing on Canada and other governments; the actors, ideas, interests and institutions involved in the design and implementation of public policy; Political geography; the media and politics; social justice; religion and politics; gender and politics. (Also relevant to C)</p>		
<p>B. Recognize, differentiate among, select, and apply general and subject specific theories and models of teaching and learning</p> <p>Locate, examine, assess, analyze and apply professional literature related to educational practice</p> <p>Research and investigate political issues, synthesize data and information from varying sources and present descriptive and empirical evidence to support a central thesis</p> <p>Analyze and evaluate public policy outputs and outcomes</p> <p>Appraise alternative courses of action to address contemporary problems in political science</p>	<p>B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>	<ol style="list-style-type: none"> <li>1. Depth and Breadth of Knowledge</li> <li>2. Knowledge of Methodologies</li> <li>3. Application of Knowledge</li> <li>5. Awareness of Limits of Knowledge</li> </ol>
<p>C.</p> <p>Question alternative perceptions such as post-colonial bodies of knowledge</p> <p>Critically reflect on and commit to professional learning to enhance and develop their practice</p> <p>Demonstrate professional aptitude for observation, critique and assessment to improve student learning</p>	<p>C. critical thinking and problem-solving skills</p>	<ol style="list-style-type: none"> <li>1. Depth and Breadth of Knowledge</li> <li>2. Knowledge of Methodologies</li> <li>3. Application of Knowledge</li> <li>5. Awareness of Limits of Knowledge</li> </ol>

**PROGRAM DEVELOPMENT COMMITTEE**  
**COMBINED PROGRAM OR CONCURRENT OFFERING**  
**(from existing programs)**  
**FORM C2**

Program Learning Outcomes (Degree Level Expectations)	Characteristics of a University of Windsor Graduate	COU-approved Undergraduate Degree Level Expectations
<p><i>This is a sentence completion exercise. Please provide a minimum of 1 learning outcome for each of the boxes associated with a graduate attribute.</i></p> <p><u>At the end of this program, the successful student will know and be able to:</u></p>	<p><u>A UWindsor graduate will have the ability to demonstrate:</u></p>	
<p>Use instructional strategies, technologies, tools, and media, including assistive and adaptive learning technologies appropriate to students' needs, abilities and contexts</p>		
<p>Employ strategies to elicit critical and creative thinking and develop problem solving capabilities in students (also relevant to H)</p>		
<p>Think critically about issues in education and the role of teachers in society, informed by a sound knowledge of the social, historical, political and cultural foundations of public education</p>		
<p>Confidently assert political ideas and arguments, and defend them with sound reason and logic.</p>		
<p>Critically analyze political ideas espoused by politicians, promoted by interest groups and reported by the media.</p>		
<p>D Apply literacies, ways of knowing, and pedagogical expertise in the context of subject-matter knowledge</p> <p>Communicate fluently and proficiently in both oral and written forms in academic and professional settings</p> <p>Employ effective practices and subject expertise to support and develop students' abilities in reading, writing and mathematics including financial literacy</p> <p>Effectively communicate ideas, arguments and evidence in political science through clear, concise and coherent written work</p> <p>Clearly and confidently articulate ideas and arguments in political science</p>	<p>D. literacy and numeracy skills</p>	<p>4. Communication Skills  5. Awareness of Limits of Knowledge</p>

**PROGRAM DEVELOPMENT COMMITTEE**  
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**(from existing programs)**  
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Program Learning Outcomes (Degree Level Expectations)	Characteristics of a University of Windsor Graduate	COU-approved Undergraduate Degree Level Expectations
<p><i>This is a sentence completion exercise. Please provide a minimum of 1 learning outcome for each of the boxes associated with a graduate attribute.</i></p> <p><u>At the end of this program, the successful student will know and be able to:</u></p>	<p><u>A UWindsor graduate will have the ability to demonstrate:</u></p>	
<p>E. Commit to the values of social justice, equity, and diversity in all aspects of their professional roles</p> <p>Explain the rights and responsibilities associated with Canadian citizenship and their importance to the Canadian political system.</p> <p>Through comparative analysis, demonstrate awareness of political traditions and practices in other cultures</p>	<p>E. responsible behaviour to self, others and society</p>	<p>5. Awareness of Limits of Knowledge 6. Autonomy and Professional Capacity</p>
<p>F. Engage and embrace the strengths of English language learners and multi-lingual learners</p> <p>Contribute to the life of the school and community by employing effective approaches to communication and collaboration with stakeholders</p> <p>Utilize effective curricular, pedagogical, and evaluative tools and practices to promote the educational success of Aboriginal learners</p> <p>Pursue opportunities to advance social responsibility and environmental citizenship (also relevant to E)</p> <p>Facilitate the civic responsibility of students and the development of citizenship</p> <p>Cultivate and support collaborative and communicative abilities in learners through a variety of approaches</p> <p>Engage in focused dialogue and debate concerning complex and controversial political issues, presenting well-reasoned arguments while being respectful of alternative opinions</p>	<p>F. interpersonal and communications skills</p>	<p>4. Communication Skills 6. Autonomy and Professional Capacity</p>

**PROGRAM DEVELOPMENT COMMITTEE**  
**COMBINED PROGRAM OR CONCURRENT OFFERING**  
**(from existing programs)**  
**FORM C2**

Program Learning Outcomes (Degree Level Expectations)	Characteristics of a University of Windsor Graduate	COU-approved Undergraduate Degree Level Expectations
<p><i>This is a sentence completion exercise. Please provide a minimum of 1 learning outcome for each of the boxes associated with a graduate attribute.</i></p> <p><u>At the end of this program, the successful student will know and be able to:</u></p>	<p><u>A UWindsor graduate will have the ability to demonstrate:</u></p>	
<p>G. Apply/integrate educationally appropriate uses of social media and communications technologies</p> <p>Respond to and be responsible to learners, families, colleagues, and communities (also relevant to E)</p> <p>Demonstrate superior problem-solving capacity, working both independently and in a cooperative team environment. (Also relevant to C)</p>	<p>G. teamwork, and personal and group leadership skills</p>	<p>4. Communication Skills 6. Autonomy and Professional Capacity</p>
<p>H. Promote collegiality, cooperation, and professionalism in schools and among teachers in an equity-based context</p> <p>Demonstrate inclusive and collaborative pedagogical praxis that values diversity and prepares students for living in a global, multicultural and equity-informed context</p> <p>Recognize the transformative power of learning for individuals and communities</p> <p>Take responsibility for their own learning and professional growth (also relevant to E)</p>	<p>H. creativity and aesthetic appreciation</p>	<p>2. Knowledge of Methodologies 3. Application of Knowledge 6. Autonomy and Professional Capacity</p>
<p>Utilize classroom research to advance their own professional practice</p> <p>Propose and evaluate alternative policy solutions to contemporary societal problems</p> <p>Perform comparative analysis of politics in other states to generate ideas that might improve Canadian political practices</p>		
<p>I. Facilitate the application of subject-matter to real-life experience in areas such as career education and financial literacy, and foster life-long learning habits and postsecondary aspirations in students</p>	<p>I. the ability and desire for continuous learning</p>	<p>6. Autonomy and Professional Capacity</p>

**PROGRAM DEVELOPMENT COMMITTEE**  
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**(from existing programs)**  
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Program Learning Outcomes (Degree Level Expectations)	Characteristics of a University of Windsor Graduate	COU-approved Undergraduate Degree Level Expectations
<p><i>This is a sentence completion exercise. Please provide a minimum of 1 learning outcome for each of the boxes associated with a graduate attribute.</i></p> <p><u>At the end of this program, the successful student will know and be able to:</u></p>	<p><u>A UWindsor graduate will have the ability to demonstrate:</u></p>	
Recognize the value and importance of continuing to pursue knowledge acquisition and skills development after graduation, to remain current and competitive in a knowledge-based economy		

**B.3.1 Program Structure and Regulations Ensure Learning Outcomes Can be Met**

*Describe how the Combined program or Concurrent offering requirements and program structure ensure that the specified learning outcomes can be met by successful students.*

The learning outcomes in the concurrent program are the same as those in the BA Political Science (General) and the B.Ed.

**B.3.2 Mode of Delivery (QAF section 2.1.5)**

*Demonstrate that the proposed modes of delivery are appropriate to meet the Combined program or Concurrent offering's learning outcomes. Discuss online vs. face-to-face (e.g., lecture, seminar, tutorial, lab) modes of delivery, as well as specialized approaches intended to facilitate the acquisition of specific skills, knowledge, and attitudes.*

The modes of delivery for the will include lectures, labs, tutorials, and experiential learning (practice teaching).

**B.3.3 MONITORING AND EVALUATION (QAF section 2.1.6)**

*Describe and explain the appropriateness of the proposed methods of assessing student achievement given the new or revised intended learning outcomes and degree level expectations.*

The methods used to assess student achievement include exams, presentations, group work, essays, associate teacher evaluations of teaching and e-portfolios

**B.3.3.1 Plan for Documenting and Demonstrating Student Performance Consistent with Learning Outcomes**

*Describe the plan for documenting and demonstrating student performance level and demonstrate its consistency with the stated learning outcomes and degree level expectations.*

The plan for documenting and demonstrating student performance level will be evidenced from the results of student exams, presentations, group work, essays, associate teacher evaluation of teaching and e-portfolios.

**C.1 Student Workload**

*Provide information on the expected workload per course credit (3.0) of a student enrolled in the Combined program or Concurrent offering. (For assistance with this exercise, proposers are encouraged to contact the Centre for Teaching and Learning.)*

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Expected Workload per 3.0 Course Credit/Week	Average Time <i>per week</i> the Student is Expected to Devote to Each Component Over the Course of the Combined Program or Concurrent offering
Lectures	BA= 15 hours B.Ed. = 15 hours
Tutorials	B.Ed. = Professional Learning Series Workshops (2)
Practical experience	
Service or experiential learning	Practice Teaching Days (80-499) = 40-45 per semester, Courses 80-199, 80-299 and 80-399 (25 hours per semester)
Independent study	
Reading and work for assessment, including meeting classmates for group work/project assignments (essays, papers, projects, laboratory work, etc.)	
Studying for tests/examinations	
Other: <i>[specify]</i>	
<b>Compare the student workload for the Combined program or Concurrent offering with the workload for the existing program and other similar programs in the AAU:</b>	
It will be the same, with additional practice teaching days in Years I, II and IV.	

**C. RESOURCES**

**C.1 Available Faculty and Staff Resources (QAF sections 2.1.7, 2.1.8, 2.1.9 and 2.1.10)**

*Describe, in general terms, all faculty and staff resources (e.g., administrative, teaching, supervision) from all affected areas/departments currently available and actively committed to support the Combined program or Concurrent offering. Please do not name specific individuals.*

Adequate Faculty and Staff resources are in place.

**C.1.1 Extent of Reliance on Adjunct, Limited-term, and Sessional Faculty in Delivering the Articulation agreement/Degree Completion Program**

*Describe the area's expected reliance on, and the role of adjunct, limited-term, and sessional faculty in delivering the Combined program or Concurrent offering.*

This will be the same as our current programs. For the B.Ed., at least half the courses are taught by sessional or LTA.

**C.1.2 Graduate Faculty Qualifications and Supervisory Loads (FOR GRADUATE PROGRAMS ONLY)**

*Given the expected influx of students, explain how supervisory loads will be distributed, and describe the qualifications and appointment status of faculty who will provide instruction and supervision in the Combined program or Concurrent offering.*

N/A

**C.1.3 Financial Assistance for Graduate Students (where appropriate) (FOR GRADUATE PROGRAMS ONLY)**

*Given the expected influx of students and where appropriate to the Combined program or Concurrent offering, provide evidence that financial assistance for graduate students will be sufficient to ensure adequate quality and numbers of students.*

N/A

**C.2 Other Available Resources (Ministry sections 3 and 4)**

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*Provide evidence that there are adequate resources available and committed to the Combined program or Concurrent offering to sustain the quality of scholarship produced by undergraduate students as well as graduate students' scholarship and research activities, including for example:*

- staff support, library, teaching and learning support, student support services, space, equipment, facilities, GA/TA

The same resources as exist for non-concurrent students are available.

**C.3 Resource Implications for Other Campus Units (Ministry sections 3 and 4)**

*Describe the reliance of the proposed Combined program or Concurrent offering on existing resources from other campus units, including for example:*

- existing courses, equipment or facilities outside the proposer's control, external resources requiring maintenance or upgrading using external resources. Provide relevant details.

N/A

**C.4 Anticipated New Resources (QAF sections 2.1.7, 2.1.8 and 2.1.9; Ministry section 4)**

*List all anticipated new resources originating from within the area, department or faculty (external grants, donations, government grants, etc.) and committed to supporting the Combined program or Concurrent offering.*

N/A

**C.5 Planned Reallocation of Resources and Cost-Savings (QAF section 2.1.7 and 2.1.9; Ministry section 4)**

*Describe all opportunities for internal reallocation of resources and cost savings identified and pursued by the area/department in support of the Combined program or Concurrent offering. (e.g., streamlining existing programs and courses, deleting courses, etc.).*

N/A

**C.6 Additional Resources Required – Resources Requested (QAF section 2.1.7 and 2.1.9)**

*Describe all additional faculty, staff and GA/TA resources (in all affected areas and departments) required to run the Combined program or Concurrent offering.*

<b>Faculty:</b>	None
<b>Staff:</b>	None
<b>GA/TAs:</b>	None

**C.6.1 Additional Institutional Resources and Services Required by all Affected Areas or Departments**

*Describe all additional institutional resources and services required by all affected areas or departments to run the Combined program or Concurrent offering, including library, teaching and learning support services, student support services, space and facilities, and equipment and its maintenance.*

<b>Library Resources and Services:</b>	None
<b>Teaching and Learning Support:</b>	None
<b>Student Support Services:</b>	None
<b>Space and Facilities:</b>	None
<b>Equipment (and Maintenance):</b>	None

N/A

**University of Windsor  
Program Development Committee**

\*5.5: **Women's and Gender Studies - Summary of Minor Course and Calendar Changes**

Item for: **Information**

Forwarded by: **Women's and Gender Studies, Faculty of Arts, Humanities, and Social Sciences**

**INSTRUCTIONS ARE PROVIDED IN SHADED AREAS. DO NOT WRITE IN SHADED AREAS.**

<p>Please specify to which calendar [Undergraduate or Graduate] the changes will be made. Include the effective date* [Fall, Winter, Spring, 20XX]. *(subject to timely and clear submission)</p> <p>These changes require no new resources.</p>	<p>Fall 2018</p>
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**PART B – Proposed Course Calendar Revisions**

*Please provide the current and the proposed new course information by cutting and pasting from the current undergraduate or graduate online calendar ([www.uwindsor.ca/calendars](http://www.uwindsor.ca/calendars)) and clearly marking deletions with strikethrough (~~strikethrough~~) and additions/new information with **bolding and underlining**.*

*For contact hour/laboratory requirement changes which do not always appear in the calendar, please type in the current information and clearly mark deletions with strikethrough (~~strikethrough~~) and additions/new information with **bolding and underlining**.*

**Example: 03-101. University Senates – Role and Power** This course explores the history, role, and power of Senates in Canadian universities. (Also offered as 04-101.) (Prerequisite: 03-100.) ~~2 lecture hours and 1 tutorial hour per week~~  
**3 lecture hours/week**

**38-447. Practicum in Social Justice**

~~This course offers students the opportunity to apply their academic knowledge in a practical setting. Students will be placed with organizations dedicated to the pursuit of social justice in the Windsor area. Students will be assigned a major project to be completed under the supervision of the course instructor and an on-site practicum supervisor. Students will be expected to contribute a minimum of three hours per week, meeting regularly with course instructor to provide oral and written reports. This course is open to Social Justice majors only. Prerequisites: 38-321 and semester 5 standing.~~

**Part C – Learning Outcomes for EACH Course Listed Above**

N/A

**University of Windsor  
Program Development Committee**

**\*5.6      Combined Honours BSW and Disability Studies Program**

**Item for: Information**

**PROGRAM TITLE: Combined Honours BSW and Disability Studies Program**

<b>Program Learning Outcomes (Degree Level Expectations)</b> <i>This is a sentence completion exercise. Please provide a minimum of 1 learning outcome for each of the boxes associated with a graduate attribute. At the end of this program, the successful student will know and be able to:</i>	<b>Characteristics of a University of Windsor Graduate</b> <u>A UWindsor graduate will have the ability to demonstrate:</u>	<b>COU-approved Undergraduate Degree Level Expectations</b>
<p>A.</p> <p>Describe Canadian social welfare, social policy, and social work from historical, sociopolitical, economic and environmental perspectives, identifying systemic barriers to full participation for persons with disabilities.</p> <p>Foster and promote social work values and ethics, including: Dignity and potential of all people; self-determination; empowerment; confidentiality; professional competence; social justice.</p> <p>Describe and demonstrate the skills of generalist social work to respond to the needs, barriers and challenges faced by persons with disabilities, in a variety of contexts, including small groups, families, organizations, and communities/societies.</p> <p>Employ inter-professional collaboration and team work (also applies to E and G).</p>	<p>A. the acquisition, application and integration of knowledge</p>	<p>1. Depth and Breadth of Knowledge 2. Knowledge of Methodologies 3. Application of Knowledge 5. Awareness of Limits of Knowledge</p>
<p>B.</p> <p>Examine literature from multivariate perspectives to identify approaches to discriminatory treatment of disability groups within the context of a social model of disability.</p> <p>Position social work knowledge within a broader liberal arts/humanities/social sciences context</p> <p>Evaluate the effectiveness of practice intervention, particularly models addressing individuals with disability</p>	<p>B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>	<p>1. Depth and Breadth of Knowledge 2. Knowledge of Methodologies 3. Application of Knowledge 5. Awareness of Limits of Knowledge</p>

<b>Program Learning Outcomes (Degree Level Expectations)</b> <i>This is a sentence completion exercise. Please provide a minimum of 1 learning outcome for each of the boxes associated with a graduate attribute. At the end of this program, the successful student will know and be able to:</i>	<b>Characteristics of a University of Windsor Graduate</b> <u>A UWindsor graduate will have the ability to demonstrate:</u>	<b>COU-approved Undergraduate Degree Level Expectations</b>
<p>C. Appraise multiple theoretical and conceptual explanations for: Human behavior and development Social welfare Professional communication Methods for generalist social work practice</p> <p>Distinguish the effects of diversity related to: Geography; Class and employment status; Race, ethnicity, culture; Sex; Ability; Gender and gender identity; Sexual orientation; Language; Age</p> <p>Analyze the history and evolution of social justice perspectives to identify structural barriers that continue to marginalize and oppress individuals with disabilities.</p> <p>Promote approaches to eliminate barriers, oppression and discrimination against persons with disabilities.</p>	c. critical thinking and problem-solving skills	1. Depth and Breadth of Knowledge 2. Knowledge of Methodologies 3. Application of Knowledge 5. Awareness of Limits of Knowledge
<p>D. Articulate ideas based on multiple perspectives and evidence in written and oral form</p> <p>Conduct interviews effectively, courteously, demonstrating respect for diverse perspectives (also relevant to F).</p> <p>Develop grant and program proposals and analyze their effectiveness</p>	D. literacy and numeracy skills	4. Communication Skills 5. Awareness of Limits of Knowledge
<p>E. Design, develop, and implement individual and/or collective social justice efforts, integrating acceptance of persons with disabilities as full participants in aspects of society.</p> <p>Engage in professional practice consistent with the ethics, values and standards of practice articulated by the Ontario College of Social Workers and Social Service Workers and the Canadian Association of Social Workers</p>	E. responsible behaviour to self, others and society	Awareness of Limits of Knowledge 6. Autonomy and Professional Capacity

<b>Program Learning Outcomes (Degree Level Expectations)</b> <i>This is a sentence completion exercise. Please provide a minimum of 1 learning outcome for each of the boxes associated with a graduate attribute. At the end of this program, the successful student will know and be able to:</i>	<b>Characteristics of a University of Windsor Graduate</b> <u>A UWindsor graduate will have the ability to demonstrate:</u>	<b>COU-approved Undergraduate Degree Level Expectations</b>
F. Articulate knowledge based on multiple perspectives in different settings, with particular attention to the needs of individuals with disabilities, incorporating the expression within the disability movement's credo: "nothing about us without us".	F. interpersonal and communications skills	4. Communication Skills 6. Autonomy and Professional Capacity
G. Demonstrate capacity for respectful and responsible work with others, regardless of ability, engaging in identification and removal of barriers for their full participation  Apply values, ethics and standards of practice in group and team work	G. teamwork, and personal and group leadership skills	4. Communication Skills 6. Autonomy and Professional Capacity
H. Use critical thinking and Integrate knowledge, values and skills to address the needs of persons with disabilities; particularly differentiating between equality and equity.	H. creativity and aesthetic appreciation	2. Knowledge of Methodologies 3. Application of Knowledge 6. Autonomy and Professional Capacity
I. Demonstrate their commitment to lifelong learning in the field of disability by promoting approaches to eliminate barriers, oppression and discrimination against persons with disabilities.	I. the ability and desire for continuous learning	6. Autonomy and Professional Capacity

**University of Windsor  
Program Development Committee**

**\*5.7      Disability Studies and Psychology Program**

**Item for: Information**

**PROGRAM TITLE: Honours BA Disability Studies and Psychology**

<b>Program Learning Outcomes (Degree Level Expectations)</b> <i>This is a sentence completion exercise. Please provide a minimum of 1 learning outcome for each of the boxes associated with a graduate attribute.</i> <u>At the end of this program, the successful student will know and be able to:</u>	<b>Characteristics of a University of Windsor Graduate</b>  <u>A UWindsor graduate will have the ability to demonstrate:</u>	<b>COU-approved Undergraduate Degree Level Expectations</b>
<p>A.</p> <ul style="list-style-type: none"> <li>• Apply and integrate psychological concepts, language, major theories, and research findings to explain psychological phenomena, particularly for persons with disabilities.</li> <li>• Articulate how psychological principles can be used to explain social issues particularly for individuals with disabilities.</li> <li>• Identify system barriers for individuals with disabilities and define approaches to overcome systemic challenges.</li> </ul>	<p>A. the acquisition, application and integration of knowledge</p>	<p>1. Depth and Breadth of Knowledge 2. Knowledge of Methodologies 3. Application of Knowledge 5. Awareness of Limits of Knowledge</p>
<p>B.</p> <ul style="list-style-type: none"> <li>• Examine theories and approaches used to explain differential or discriminatory treatment of disability groups within the context of a social model of disability.</li> <li>• Identify, through research, differential treatment of persons with disabilities.</li> <li>• Design and conduct psychological research in accordance with the ethical requirements for the discipline of Psychology regarding the treatment of participants (Also relevant to E).</li> </ul>	<p>B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>	<p>1. Depth and Breadth of Knowledge 2. Knowledge of Methodologies 3. Application of Knowledge 5. Awareness of Limits Knowledge</p>
<p>C.</p> <ul style="list-style-type: none"> <li>• Analyze, using psychological theories and concepts, the history and evolution of social justice affecting persons with disabilities and compare to current approaches to eliminate oppression and</li> </ul>	<p>C. critical thinking and problem-solving skills</p>	<p>1. Depth and Breadth of Knowledge 2. Knowledge of Methodologies 3. Application of Knowledge 5. Awareness of Limits of Knowledge</p>

<b>Program Learning Outcomes (Degree Level Expectations)</b> <i>This is a sentence completion exercise. Please provide a minimum of 1 learning outcome for each of the boxes associated with a graduate attribute. At the end of this program, the successful student will know and be able to:</i>	<b>Characteristics of a University of Windsor Graduate</b> <u>A UWindsor graduate will have the ability to demonstrate:</u>	<b>COU-approved Undergraduate Degree Level Expectations</b>
discrimination of persons with disabilities.		
D. <ul style="list-style-type: none"> <li>Conduct statistical analyses to evaluate research questions and hypotheses (Also relevant to B)</li> <li>Develop grant and program proposals and analyze their effectiveness using appropriate literacy and numeracy skills.</li> <li>Write effectively in various formats in the publication style of the American Psychological Association.</li> </ul>	D. literacy and numeracy skills	4. Communication Skills 5. Awareness of Limits of Knowledge
E. <ul style="list-style-type: none"> <li>Explain, assess and apply ethical behavior to integrate values of respect for and acceptance of persons with disabilities as full participants in all society aspects.</li> </ul>	E. responsible behaviour to self, others and society	5. Awareness of Limits of Knowledge 6. Autonomy and Professional Capacity
F. <ul style="list-style-type: none"> <li>Write about, discuss and address the needs of persons with disabilities and other audiences.</li> </ul>	F. interpersonal and communications skills	4. Communication Skills 6. Autonomy and Professional Capacity
G. <ul style="list-style-type: none"> <li>Collaborate and effectively interact with colleagues to identify and remove barriers to full participation for persons with disabilities.</li> </ul>	G. teamwork, and personal and group leadership skills	4. Communication Skills 6. Autonomy and Professional Capacity
H. <ul style="list-style-type: none"> <li>Interpret the difference between equality and equity as applied to the fulfillment of the needs of persons with disabilities.</li> <li>Generate novel approaches to problem-solving in psychology.</li> </ul>	H. creativity and aesthetic appreciation	2. Knowledge of Methodologies 3. Application of Knowledge 6. Autonomy and Professional Capacity
I. <ul style="list-style-type: none"> <li>Identify and participate in continuous learning opportunities as part of the commitment to the fields of psychology and disability; ask skeptical questions about causes of behaviour.</li> <li>Tolerate ambiguity and accept the tentative and complex nature of</li> </ul>	I. the ability and desire for continuous learning	6. Autonomy and Professional Capacity

<b>Program Learning Outcomes (Degree Level Expectations)</b> <i>This is a sentence completion exercise. Please provide a minimum of 1 learning outcome for each of the boxes associated with a graduate attribute. At the end of this program, the successful student will know and be able to:</i>	<b>Characteristics of a University of Windsor Graduate</b> <u>A UWindsor graduate will have the ability to demonstrate:</u>	<b>COU-approved Undergraduate Degree Level Expectations</b>
psychological explanations. <ul style="list-style-type: none"> <li>• Conduct regular and frequent self-assessment to identify abilities, achievements, and further learning opportunities.</li> </ul>		

**University of Windsor  
Program Development Committee**

**\*5.8 BA Honours Disability Studies Program**

**Item for: Information**

**PROGRAM TITLE: Honours BA Disability Studies**

<b>Program Learning Outcomes (Degree Level Expectations)</b>	<b>Characteristics of a University of Windsor Graduate</b>	<b>COU-approved Undergraduate Degree Level Expectations</b>
<p><i>This is a sentence completion exercise. Please provide a minimum of 1 learning outcome for each of the boxes associated with a graduate attribute. At the end of this program, the successful student will know and be able to:</i></p>	<p><u>A UWindsor graduate will have the ability to demonstrate:</u></p>	
<p>A. Recognize, discuss and explain systemic barriers to full participation for persons with disabilities in society's social, economic and political institutions</p>	<p>A. the acquisition, application and integration of knowledge</p>	<p>1. Depth and Breadth of Knowledge 2. Knowledge of Methodologies 3. Application of Knowledge 5. Awareness of Limits of Knowledge</p>
<p>B. Examine theories and approaches used to explain differential or discriminatory treatment of disability groups within the context of a social model of disability</p>	<p>B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>	<p>1. Depth and Breadth of Knowledge 2. Knowledge of Methodologies 3. Application of Knowledge 5. Awareness of Limits Knowledge</p>
<p>C. Relate the history and evolution of social justice perspectives affecting persons with disabilities to current examination of approaches to eliminate oppression and discrimination of persons with disabilities.</p> <p>Interpret the difference between equality and equity as applied to the fulfillment of the needs of persons with disabilities.</p>	<p>C. critical thinking and problem-solving skills</p>	<p>1. Depth and Breadth of Knowledge 2. Knowledge of Methodologies 3. Application of Knowledge 5. Awareness of Limits of Knowledge</p>
<p>D. Develop grant and program proposals and analyze their effectiveness using appropriate literacy and numeracy skills.</p>	<p>D. literacy and numeracy skills</p>	<p>4. Communication Skills 5. Awareness of Limits of Knowledge</p>
<p>E. Integrate values of respect for and acceptance of persons with disabilities as full participants in all aspects of society.</p>	<p>E. responsible behaviour to self, others and society</p>	<p>5. Awareness of Limits of Knowledge 6. Autonomy and Professional Capacity</p>

<b>Program Learning Outcomes (Degree Level Expectations)</b> <i>This is a sentence completion exercise. Please provide a minimum of 1 learning outcome for each of the boxes associated with a graduate attribute. At the end of this program, the successful student will know and be able to:</i>	<b>Characteristics of a University of Windsor Graduate</b> <u>A UWindsor graduate will have the ability to demonstrate:</u>	<b>COU-approved Undergraduate Degree Level Expectations</b>
F. Relate to the needs of persons with disabilities as expressed through the disability movement's credo: "nothing about us without us."	F. interpersonal and communications skills	4. Communication Skills 6. Autonomy and Professional Capacity
G. Engage with colleagues in identification and removal of barriers to full participation for persons with disabilities.	G. teamwork, and personal and group leadership skills	4. Communication Skills 6. Autonomy and Professional Capacity
H. Generate novel approaches to problem-solving in the field of disability studies	H. creativity and aesthetic appreciation	2. Knowledge of Methodologies 3. Application of Knowledge 6. Autonomy and Professional Capacity
I. Identify and participate in continuous learning opportunities as part of their commitment to the field of disability  Conduct regular and frequent self-assessment to identify abilities, achievements, and further learning opportunities.	I. the ability and desire for continuous learning	6. Autonomy and Professional Capacity

**University of Windsor**  
**Program Development Committee**

**\*5.9 BSc Honours Environmental Science (with Thesis) - Learning Outcomes**

Item for: **Information**

**PROGRAM TITLE: BSc Honours Environmental Science (with Thesis)**

<b>Program Learning Outcomes (Degree Level Expectations)</b>	<b>Characteristics of a University of Windsor Graduate</b>	<b>COU-approved Undergraduate Degree Level Expectations</b>
<p><i>This is a sentence completion exercise. Please provide a minimum of 1 learning outcome for each of the boxes associated with a graduate attribute.</i></p> <p><u>At the end of this program, the successful student will know and be able to:</u></p>	<p><u>A UWindsor graduate will have the ability to demonstrate:</u></p>	
<ul style="list-style-type: none"> <li>• Describe the features, processes and materials of the environment using appropriate scientific language.</li> <li>• Interpret observations of the environment in terms of natural and anthropogenic processes.</li> <li>• Explain how human activities influence environmental systems.</li> <li>• Explain how scientific principles and knowledge of natural processes can be used to explain and solve environmental issues and problems.</li> <li>• Make and record field observations and measurements and apply knowledge of environmental systems and processes to interpret those observations and measurements.</li> </ul>	<p>A. the acquisition, application and integration of knowledge</p>	<p>1. Depth and Breadth of Knowledge  2. Knowledge of Methodologies  3. Application of Knowledge  5. Awareness of Limits of Knowledge</p>
<ul style="list-style-type: none"> <li>• Acquire and interpret complex environmental data sets. (also relevant to D)</li> <li>• Develop and test hypotheses through rigorous application of the scientific method. (also relevant to C)</li> <li>• Carry out research projects involving experiment design and the collection, compilation, synthesis, and interpretation of original data sets that focus on environmental problems and issues. (also relevant to C)</li> </ul>	<p>B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>	<p>1. Depth and Breadth of Knowledge  2. Knowledge of Methodologies  3. Application of Knowledge  5. Awareness of Limits Knowledge</p>
<ul style="list-style-type: none"> <li>• Critically evaluate data and hypotheses pertaining to environmental issues and problems. (also relevant to E)</li> <li>• Develop innovative approaches to assessing and resolving environmental</li> </ul>	<p>C. critical thinking and problem-solving skills</p>	<p>1. Depth and Breadth of Knowledge  2. Knowledge of Methodologies  3. Application of Knowledge  5. Awareness of Limits of Knowledge</p>

<b>Program Learning Outcomes (Degree Level Expectations)</b> <i>This is a sentence completion exercise. Please provide a minimum of 1 learning outcome for each of the boxes associated with a graduate attribute.</i> <u>At the end of this program, the successful student will know and be able to:</u>	<b>Characteristics of a University of Windsor Graduate</b> <u>A UWindsor graduate will have the ability to demonstrate:</u>	<b>COU-approved Undergraduate Degree Level Expectations</b>
issues and problems through the application of sound scientific methodology.		
<ul style="list-style-type: none"> <li>• Read and critique scientific articles</li> <li>• Discuss scientific articles. (also relevant to F)</li> <li>• Manipulate and analyze large data sets using appropriate statistical tools and approaches.</li> </ul>	D. literacy and numeracy skills	4. Communication Skills 5. Awareness of Limits of Knowledge
<ul style="list-style-type: none"> <li>• Explain sustainability and the linkages between the environment, humans, and responsible resource use. (also relevant to F)</li> <li>• Explain how environmental science can be used for responsible resource exploitation and environmental management. (also relevant to F)</li> </ul>	E. responsible behaviour to self, others and society	5. Awareness of Limits of Knowledge 6. Autonomy and Professional Capacity
<ul style="list-style-type: none"> <li>• Effectively communicate scientific ideas, data and interpretations.</li> <li>• Communicate the importance of applying the scientific method to environmental issues.</li> <li>• Prepare and present papers and seminars.</li> </ul>	F. interpersonal and communications skills	4. Communication Skills 6. Autonomy and Professional Capacity
<ul style="list-style-type: none"> <li>• Interact effectively within diverse professional and non-expert groups. (also relevant to F)</li> <li>• Integrate and apply scientific knowledge in a leadership role. (also relevant to E)</li> </ul>	G. teamwork, and personal and group leadership skills	4. Communication Skills 6. Autonomy and Professional Capacity
<ul style="list-style-type: none"> <li>• Creatively present scientific data about environmental problems and their interpretation in a way that increases scientific and societal impact and relevance. (also relevant to C, E and F)</li> </ul>	H. creativity and aesthetic appreciation	2. Knowledge of Methodologies 3. Application of Knowledge 6. Autonomy and Professional Capacity
<ul style="list-style-type: none"> <li>• Apply knowledge of environmental science to evaluate current and future environmental issues.</li> </ul>	I. the ability and desire for continuous learning	6. Autonomy and Professional Capacity

**University of Windsor  
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\*5.10 **BSc Honours Environmental Science - Learning Outcomes**

Item for: **Information**

**PROGRAM TITLE: BSc Honours Environmental Science**

<b>Program Learning Outcomes (Degree Level Expectations)</b> <i>This is a sentence completion exercise. Please provide a minimum of 1 learning outcome for each of the boxes associated with a graduate attribute. At the end of this program, the successful student will know and be able to:</i>	<b>Characteristics of a University of Windsor Graduate</b> <u>A UWindsor graduate will have the ability to demonstrate:</u>	<b>COU-approved Undergraduate Degree Level Expectations</b>
<ul style="list-style-type: none"> <li>Describe the features, processes and materials of the environment using appropriate scientific language.</li> <li>Interpret observations of the environment in terms of natural and anthropogenic processes.</li> <li>Explain how human activities influence environmental systems.</li> <li>Explain how scientific principles and knowledge of natural processes can be used to explain and solve environmental issues and problems.</li> <li>Make and record field observations and measurements and apply knowledge of environmental systems and processes to interpret those observations and measurements.</li> </ul>	A. the acquisition, application and integration of knowledge	1. Depth and Breadth of Knowledge 2. Knowledge of Methodologies 3. Application of Knowledge 5. Awareness of Limits of Knowledge
<ul style="list-style-type: none"> <li>Acquire and interpret complex environmental data sets. (also relevant to D)</li> <li>Test hypotheses through rigorous application of the scientific method. (also relevant to C)</li> </ul>	B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)	1. Depth and Breadth of Knowledge 2. Knowledge of Methodologies 3. Application of Knowledge 5. Awareness of Limits Knowledge
<ul style="list-style-type: none"> <li>Critically evaluate data and hypotheses pertaining to environmental issues and problems. (also relevant to E)</li> <li>Develop innovative approaches to assessing and resolving environmental issues and problems through the application of sound scientific methodology.</li> </ul>	C. critical thinking and problem-solving skills	1. Depth and Breadth of Knowledge 2. Knowledge of Methodologies 3. Application of Knowledge 5. Awareness of Limits of Knowledge

<b>Program Learning Outcomes (Degree Level Expectations)</b> <i>This is a sentence completion exercise. Please provide a minimum of 1 learning outcome for each of the boxes associated with a graduate attribute. At the end of this program, the successful student will know and be able to:</i>	<b>Characteristics of a University of Windsor Graduate</b> <u>A UWindsor graduate will have the ability to demonstrate:</u>	<b>COU-approved Undergraduate Degree Level Expectations</b>
<ul style="list-style-type: none"> <li>• Read and critique scientific articles.</li> <li>• Discuss scientific articles. (also relevant to F)</li> <li>• Manipulate and analyze large data sets using appropriate statistical tools and approaches.</li> </ul>	D. literacy and numeracy skills	4. Communication Skills 5. Awareness of Limits of Knowledge
<ul style="list-style-type: none"> <li>• Explain sustainability and the linkages between the environment, humans, and responsible resource use. (also relevant to F)</li> <li>• Explain how environmental science can be used for responsible resource exploitation and environmental management. (also relevant to F)</li> </ul>	E. responsible behaviour to self, others and society	5. Awareness of Limits of Knowledge 6. Autonomy and Professional Capacity
<ul style="list-style-type: none"> <li>• Effectively communicate scientific ideas, data and interpretations.</li> <li>• Communicate the importance of applying the scientific method to environmental issues.</li> <li>• Prepare and present papers and seminars.</li> </ul>	F. interpersonal and communications skills	4. Communication Skills 6. Autonomy and Professional Capacity
<ul style="list-style-type: none"> <li>• Interact effectively within diverse professional and non-expert groups. (also relevant to F)</li> <li>• Integrate and apply scientific knowledge in a leadership role. (also relevant to E)</li> </ul>	G. teamwork, and personal and group leadership skills	4. Communication Skills 6. Autonomy and Professional Capacity
<ul style="list-style-type: none"> <li>• Creatively present scientific data about environmental problems and their interpretation in a way that increases scientific and societal impact and relevance. (also relevant to C, E and F)</li> <li>• Apply knowledge of environmental science to evaluate current and future environmental issues.</li> </ul>	H. creativity and aesthetic appreciation	2. Knowledge of Methodologies 3. Application of Knowledge 6. Autonomy and Professional Capacity
	I. the ability and desire for continuous learning	6. Autonomy and Professional Capacity

**University of Windsor  
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**\*5.11      Earth and Environmental Science - Learning Outcomes**

Item for: **Information**

**The following is a list of the course learning outcomes:**

- 58-100 Introduction to Environmental Studies
- 58-449 Research Project in Environmental Studies
- 66-100 Introduction to Geomorphology
- 66-102 Atmosphere and Climate
- 66-110 Natural Hazards and Disasters
- 66-111 Our Changing Earth
- 66-140 Introduction to Earth Science
- 66-141 Introduction to Environmental Science
- 66-200 Principles of Resource Management
- 66-213 Geology and the Environment
- 66-214 Geology and International Development
- 66-215 Introduction to Aerial Photography and Cartography
- 66-216 Principles of Applications of GIS
- 66-220 Climatology
- 66-221 Environmental Geomorphology
- 66-224 Introduction to Geochemistry
- 66-231 Introduction to Petrology
- 66-246 Environmental Decisions Analysis
- 66-247 Environmental Auditing in Mineral Resource Development
- 66-320 Analysis of Environmental Materials
- 66-328 Environmental Geochemistry
- 66-330 Environmental Geophysics
- 66-332 Issues in Resources and Environmental Systems
- 66-334 Environmental Impact Assessment
- 66-337 Hydrogeology
- 66-370 Climate Change
- 66-380 Field Methods for Environmental Science
- 66-381 Field Methods for Environmental Studies
- 66-440 Biogeochemistry
- 66-499 Thesis Research in Environmental Science

**COURSE NUMBER AND TITLE: 58-100 Introduction to Environmental Studies**

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>	<b>Characteristics of a University of Windsor Graduate</b>
<u>At the end of this course, the successful student will know and be able to:</u>	<u>A U of Windsor graduate will have the ability to demonstrate:</u>
A. Define the main terms and concepts used in the study of environmental issues. Identify and examine the physical, social, cultural, economic, political, and ethical elements of an environmental topic. Explain the importance of sustainability.	the acquisition, application and integration of knowledge
B. Locate reference material related to environmental topics or issues from a variety of sources.	research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
C. Evaluate reference material for relevance to environmental issues. Explain the context of issues from multiple perspectives. (also relevant to F)	critical thinking and problem-solving skills
D. Identify and report main facts and arguments in news sources and reference material.	literacy and numeracy skills
E. Define and explain one's personal and social relationship with the natural world.	responsible behaviour to self, others and society
F.	interpersonal and communications skills
G.	teamwork, and personal and group leadership skills
H.	creativity and aesthetic appreciation
I.	the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 58-499 Research Project in Environmental Studies**

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>	<b>Characteristics of a University of Windsor Graduate</b>
<u>At the end of this course, the successful student will know and be able to:</u>	<u>A U of Windsor graduate will have the ability to demonstrate:</u>
A. Describe the current state of knowledge in one or more research topics in Environmental Studies. Define current challenges and opportunities in selected topic(s) in Environmental Studies.	the acquisition, application and integration of knowledge
B. Define project problem statements or research questions that address current challenges within a selected topic of interest in Environmental Studies. Assess information for relevance, summarize and synthesize relevant information, and investigate practical strategies for solving a problem of interest in Environmental Studies. (also relevant to C) Design sampling strategies and use field sampling tools and equipment, or use survey or other qualitative tools, to collect observations and samples for further analysis.	research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
C. Define scopes of study and general project methodologies, and develop work plans. Propose and evaluate possible solutions to a problem of interest in Environmental Studies.	critical thinking and problem-solving skills
D. Interpret quantitative and/or qualitative information relevant to a problem of study in Environmental Studies. Describe, interpret, and discuss hypotheses, data, and findings in the context of previously published studies in writing.	literacy and numeracy skills
E. Define and meet a series of medium- to long-term project milestones and deadlines.	responsible behaviour to self, others and society
F. Communicate the results of inquiry, implications, and/or practical implementation accurately, clearly, and appropriately to diverse audiences. Synthesize and present research results and interpretations in public presentations.	interpersonal and communications skills
G.	teamwork, and personal and group leadership skills

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>	<b>Characteristics of a University of Windsor Graduate</b>
<u>At the end of this course, the successful student will know and be able to:</u> <u>Demonstrate personal leadership in carrying out independent research.</u>	<u>A U of Windsor graduate will have the ability to demonstrate:</u>
H.  I. Explain the personal rationale for, and relevance of studying, a chosen topic in Environmental Studies.	creativity and aesthetic appreciation  the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 03-66-100 Introduction to Geomorphology**

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>	<b>Characteristics of a University of Windsor Graduate</b>
<u>At the end of this course, the successful student will know and be able to:</u>	<u>A U of Windsor graduate will have the ability to demonstrate:</u>
A. Describe and explain the processes shaping Canada's and Earth's landforms and landscapes, in the past, present, and with climate and land use changes, in the future. Describe and explain the impact of geomorphological processes on human activities, as well as the impact of human activities on natural processes and the natural environment.	the acquisition, application and integration of knowledge
B.	research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
C. Cite theories and evidence pertinent to discussions on climate change, human impacts, urban flooding, and other topical and contentious environmental issues. Distinguish between arguments that are based on scientific data from those that are not.	critical thinking and problem-solving skills
D.	literacy and numeracy skills
E.	responsible behaviour to self, others and society
F.	interpersonal and communications skills
G.	teamwork, and personal and group leadership skills
H.	creativity and aesthetic appreciation

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>	<b>Characteristics of a University of Windsor Graduate</b>
<u>At the end of this course, the successful student will know and be able to:</u>	A U of Windsor graduate will have the ability to demonstrate:
I.	the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 66-102 Atmosphere and Climate**

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>	<b>Characteristics of a University of Windsor Graduate</b>
<p><u>At the end of this course, the successful student will know and be able to:</u></p>	<p><u>A U of Windsor graduate will have the ability to demonstrate:</u></p>
<p>A. Describe how fundamental atmospheric processes and weather events work. Identify the main types of weather features, describe their characteristics, and describe their relationships with other weather events. Explain why particular weather events happen in particular geographic regions.</p>	<p>the acquisition, application and integration of knowledge</p>
<p>B. Interpret weather maps and weather information presented in news media.</p>	<p>research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>
<p>C. Make simple short-term weather predictions from observing current weather conditions.</p>	<p>critical thinking and problem-solving skills</p>
<p>D. Describe basic energy and physical relationships as they are represented on graphs.</p>	<p>literacy and numeracy skills</p>
<p>E. Describe the main factors influencing climate and climate change, and discuss the impacts of climate change on society.</p>	<p>responsible behaviour to self, others and society</p>
	<p>interpersonal and communications skills</p>
	<p>teamwork, and personal and group leadership skills</p>
	<p>creativity and aesthetic appreciation</p>
<p>I. Discuss the role and influence of weather and climate in our daily lives.</p>	<p>the ability and desire for continuous learning</p>

**COURSE NUMBER AND TITLE: 66-110 Natural Hazards and Disasters**

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>  <u>At the end of this course, the successful student will know and be able to:</u>	<b>Characteristics of a University of Windsor Graduate</b>  <u>A U of Windsor graduate will have the ability to demonstrate:</u>
<p>A.</p> <p>Explain Earth's component systems and their interrelationships.</p> <p>Name and describe Earth hazards and the Earth's interior processes.</p> <p>Describe the internal structure of Earth and explain how Earth's internal processes affect our daily lives.</p> <p>Explain the processes that create Earth hazards and disasters.</p> <p>Describe current theories on Earth's processes in generating hazards and disasters.</p> <p>Explain how humans affect hazards and disasters.</p> <p>Describe how hazards and disasters affect human population and mitigation tools.</p>	the acquisition, application and integration of knowledge
<p>B.</p> <p>Explain how scientific research is used to incrementally improve our understanding of Earth through application of the Scientific Method.</p>	research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
<p>C.</p> <p>Explain how scientific methodology is used to critically evaluate observations and measurements on the evolution of Earth's hazards and disasters.</p> <p>Distinguish between misleading common sense concepts and the reality of natural systems.</p>	critical thinking and problem-solving skills
<p>D.</p> <p>Read and critically evaluate current theories and knowledge regarding the Earth's processes. (also relevant to C)</p>	literacy and numeracy skills
<p>E.</p> <p>Explore the role of large and small-scale Earth's processes in our daily lives and future planet.</p>	responsible behaviour to self, others and society
<p>F. Critically discuss fundamental concepts regarding the origins and evolution of Earth, the nature of Earth's processes and relationship to hazards and disasters. (also relevant to C)</p>	interpersonal and communications skills
	teamwork, and personal and group leadership skills
	creativity and aesthetic appreciation

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>	<b>Characteristics of a University of Windsor Graduate</b>
<u>At the end of this course, the successful student will know and be able to:</u>	<u>A U of Windsor graduate will have the ability to demonstrate:</u>
	the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 66-111 Our Changing Earth**

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>  <u>At the end of this course, the successful student will know and be able to:</u>	<b>Characteristics of a University of Windsor Graduate</b>  <u>A U of Windsor graduate will have the ability to demonstrate:</u>
<p>A.</p> <p>Explain how scientists study Earth to understand its evolution over the past four and half billion years.</p> <p>Describe how the theory of plate tectonics explains the origins and distributions of volcanoes, earthquakes, mountain belts, oceans and continents on Earth.</p> <p>Explain the origins of minerals and rocks.</p> <p>Explain how Earth's internal processes affect climate and our daily lives.</p> <p>Describe how the changes in the hydrosphere, atmosphere, biosphere and lithosphere affect climate, including global warming, and human lives.</p> <p>Explain current theories on the origins of Earth, life, continents, oceans, atmosphere, and ice ages, and how these have changed through time.</p> <p>Explain how we know the internal structure of our planet.</p> <p>Explain how matter has evolved from atoms to organic molecules and to complex life forms.</p>	the acquisition, application and integration of knowledge
<p>B.</p> <p>Define what the scientific method is and how it is used to improve our understanding of Earth's history and evolution of life.</p> <p>Explain how 'natural laws' are used to understand geological processes.</p>	research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
<p>C.</p> <p>Explain how scientific method is used to critically evaluate observations on fossils and living organisms.</p> <p>Critically evaluate the evidence for biological and geological evolution.</p> <p>Critically analyze the current theories on the evolution of biosphere and atmosphere.</p>	critical thinking and problem-solving skills
<p>D.</p> <p>Read and critically evaluate current knowledge about the fossil record. (also relevant to C)</p> <p>Define and explain the radiogenic decay equation for obtaining absolute ages of minerals and rocks.</p> <p>Explain how the Milankovitch cycles are defined and how they affect the climate change.</p>	literacy and numeracy skills
<p>E.</p>	responsible behaviour to self, others and society

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>	<b>Characteristics of a University of Windsor Graduate</b>
At the end of this course, the successful student will know and be able to:	A U of Windsor graduate will have the ability to demonstrate:
F. Communicate and critically discuss fundamental concepts regarding the origin and evolution of Earth. Communicate the evidence for geological and biological evolution.	interpersonal and communications skills
	teamwork, and personal and group leadership skills
	creativity and aesthetic appreciation
	the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 66-140 Introduction to Earth Science**

<b>Learning Outcomes</b>	<b>Characteristics of a University of Windsor Graduate</b>
<p><i>This is a sentence completion exercise.</i></p> <p><u>At the end of this course, the successful student will know and be able to:</u></p>	<p><u>A U of Windsor graduate will have the ability to demonstrate:</u></p>
<p>A. Describe the main geological characteristics and materials of the Earth Explain the general characteristics of Earth in terms of the main processes that operate on Earth</p>	<p>the acquisition, application and integration of knowledge</p>
<p>B. Evaluate the accuracy of information about natural environments and processes on Earth.</p>	<p>research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>
<p>C. Distinguish among different Earth materials and draw conclusions about their origins. Recognize and explain the geological causes of different landscapes and environments.</p>	<p>critical thinking and problem-solving skills</p>
<p>D. Perform basic calculations regarding natural phenomena</p>	<p>literacy and numeracy skills</p>
<p>E. Explain the causes and consequences of geological hazards that impact society Explain the formation and sources of natural geological resources that are used by society</p>	<p>responsible behaviour to self, others and society</p>
	<p>interpersonal and communications skills</p>
	<p>teamwork, and personal and group leadership skills</p>
	<p>creativity and aesthetic appreciation</p>
	<p>the ability and desire for continuous learning</p>

**COURSE NUMBER AND TITLE: 66-141 Introduction to Environmental Science**

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>  <u>At the end of this course, the successful student will know and be able to:</u>	<b>Characteristics of a University of Windsor Graduate</b>  <u>A U of Windsor graduate will have the ability to demonstrate:</u>
<p>A.</p> <p>Describe Earth's environment in the context of four major spheres – geosphere, atmosphere, hydrosphere, and biosphere.</p> <p>Describe how the scientific method is applied to characterize environmental systems, processes, and problems. (Also relevant to B.)</p> <p>B.</p> <p>Explain energy and matter cycles in the context of Earth's environmental systems.</p> <p>Explain how human actions impact environmental systems and describe strategies to mitigate these impacts. (Also relevant to C)</p>	the acquisition, application and integration of knowledge
<p>B.</p> <p>Apply printed and online resource materials to locate relevant information about the environment.</p>	research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
C.	critical thinking and problem-solving skills
D.	literacy and numeracy skills
<p>E.</p> <p>Describe how consumer product choices contribute to negative environmental impacts and how alternate choices can benefit the environment.</p>	responsible behaviour to self, others and society
F.	interpersonal and communications skills
G.	teamwork, and personal and group leadership skills
H.	creativity and aesthetic appreciation
I.	the ability and desire for continuous learning

**COURSE NUMBER AND TITLE:** 03-66-200 Principles of Resource Management

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>	<b>Characteristics of a University of Windsor Graduate</b>
<u>At the end of this course, the successful student will know and be able to:</u>	<u>A U of Windsor graduate will have the ability to demonstrate:</u>
A. Synthesize the different views of resource management and sustainability with new insights. Explain the principles governing resource exploitation, allocation and utilization. Identify the challenges of working with renewable versus non-renewable energy sources.	the acquisition, application and integration of knowledge
B. summarize research articles for best management practices to promote resource sustainability. create research plans to solve specific environmental problems.	research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
C. Apply management skills to solving resource and environmental problems and issues.	critical thinking and problem-solving skills
D. apply statistical and numerical skills to measure and solve ecological and environmental problems. (also relevant to C)	literacy and numeracy skills
E. Convince others about the importance of resource management for individuals, society and next generations.	responsible behaviour to self, others and society
F. debate best practices to solve the problems of natural resource depletion and environmental degradation locally and globally.	interpersonal and communications skills
G. work as part of a team to assess environment and natural resources issues and develop complete courses of action related to resource management.	teamwork, and personal and group leadership skills
H. formulate and apply creative approaches to assessing and addressing current and future resource depletion issues	creativity and aesthetic appreciation
I.	the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 03-66-213 Geology and the Environment**

<b>Learning Outcomes</b>	<b>Characteristics of a University of Windsor Graduate</b>
<i>This is a sentence completion exercise.</i>  <u>At the end of this course, the successful student will know and be able to:</u>	<u>A U of Windsor graduate will have the ability to demonstrate:</u>
A. Explain the general role of geology in protection of the environment. Describe the relationship between Earth processes and the modes of occurrence of the main groups of natural resources.	the acquisition, application and integration of knowledge
B. Make and analyze decisions about the environment in a rational sequence of steps.	research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
C. Describe Earth processes and predict their possible impacts on human activities and artificial structures. Describe and interpret agricultural and industrial modifications of Earth processes in order to protect the natural environment.	critical thinking and problem-solving skills
D.	literacy and numeracy skills
E. Present simplified statements of possible environmental impacts for proposed approaches to land use.	responsible behaviour to self, others and society
F. Describe and interpret Earth processes in relation to the possible impacts of alternative approaches to land use in order to protect the natural environment.	interpersonal and communications skills
G.	teamwork, and personal and group leadership skills
H.	creativity and aesthetic appreciation
I.	the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 03-66-214 Geology and International Development**

<b>Learning Outcomes</b>	<b>Characteristics of a University of Windsor Graduate</b>
<p><i>This is a sentence completion exercise.</i></p> <p><u>At the end of this course, the successful student will know and be able to:</u></p>	<p><u>A U of Windsor graduate will have the ability to demonstrate:</u></p>
<p>A. Explain how the geologic cycle and the global water cycle affect life conditions in the tropics. Describe and assess water-management strategies from the differing perspectives of the supplier and the farmer.</p>	<p>the acquisition, application and integration of knowledge</p>
<p>B. Make and analyze decisions about the environment in a rational sequence of steps.</p>	<p>research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>
<p>C. Plan the implementation of simple technologies for water-resource development.</p>	<p>critical thinking and problem-solving skills</p>
<p>D.</p>	<p>literacy and numeracy skills</p>
<p>E. Critique project proposals on water-resource development, using logical framework analysis and results-based management. (also relevant to C)</p>	<p>responsible behaviour to self, others and society</p>
<p>F. Describe the potential significance of projects in water-resource management to future research and governance; (also relevant to I) present project proposals for water-resource development, soil conservation and revegetation of degraded lands. (Also relevant to E)</p>	<p>interpersonal and communications skills</p>
<p>G.</p>	<p>teamwork, and personal and group leadership skills</p>
<p>H.</p>	<p>creativity and aesthetic appreciation</p>

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>	<b>Characteristics of a University of Windsor Graduate</b>
At the end of this course, the successful student will know and be able to:	A U of Windsor graduate will have the ability to demonstrate:
I.	the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 03-66-215 Introduction to Cartography and Air Photography**

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>  <u>At the end of this course, the successful student will know and be able to:</u>	<b>Characteristics of a University of Windsor Graduate</b>  <u>A U of Windsor graduate will have the ability to demonstrate:</u>
A. Use information on topographic maps related to location, distance, elevation, gradient, and direction. (also relevant to B) Explain how statistical data can be represented on thematic maps. (also relevant to D) Describe how map projections are used to represent three-dimensional data on two dimensional maps. Describe the use of aerial photographs and satellite images, employing visible, infrared, and microwave (radar) wavelengths (multi-spectral remote sensing), to map and manage earth resources.	the acquisition, application and integration of knowledge
B. Read and interpret map and image-based information and evaluate their significance.	research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
C.	critical thinking and problem-solving skills
D. Calculate scales and distances on maps and air photographs, and how these scales change when the original map (or photo) is enlarged (or compressed). Determine the number of photographs required to cover a given area, and the gradient between points on maps. Explain and describe the use of maps and aerial images.	literacy and numeracy skills
	responsible behaviour to self, others and society
F.	interpersonal and communications skills
G.	teamwork, and personal and group leadership skills
H.	creativity and aesthetic appreciation

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>	<b>Characteristics of a University of Windsor Graduate</b>
<u>At the end of this course, the successful student will know and be able to:</u>	<u>A U of Windsor graduate will have the ability to demonstrate:</u>
I.	the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 03-66-216 Principles and Applications of Geographic Information Systems**

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>  <u>At the end of this course, the successful student will know and be able to:</u>	<b>Characteristics of a University of Windsor Graduate</b>  <u>A U of Windsor graduate will have the ability to demonstrate:</u>
<p>A.</p> <p>Describe the historical relevance GIS technology played in changing the discipline of geography and how it has become a tool used by many different professionals.</p> <p>Describe fundamental geospatial concepts and apply them to real-world problems through the use of geospatial technologies.</p> <p>Identify, locate, and acquire spatial data via various resources (online, tabular, hard-copy, etc.) and use them for a specific geospatial application.</p> <p>Generate new geospatial data via on-screen georeferencing and digitization tools.</p> <p>Create basic spatial databases and conduct general attribute and spatial queries.</p>	the acquisition, application and integration of knowledge
<p>B.</p> <p>Describe what vector and raster data are, how they are structured, and the strengths and weaknesses of each data type. (Also relevant to D)</p> <p>Describe the various techniques (digitization, GPS, <i>in situ</i> land surveying, census, remote sensing, UAVs, etc.) used to capture vector and raster data.</p>	research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
<p>C.</p> <p>Conduct analyses of vector and raster data using fundamental overlay and classification procedures.</p> <p>Describe the importance of data quality and accuracy and recognize and identify various types of errors.</p> <p>Critically assess geospatial workflows and results and determine where levels of error or uncertainty lie in processes or outcomes.</p>	critical thinking and problem-solving skills
<p>D.</p> <p>Conduct conversions between vector and raster data.</p> <p>Use proprietary (ex. ArcGIS, ArcPro) and alternative open source (ex. QGIS) GIS software products.</p>	literacy and numeracy skills
<p>E.</p>	responsible behaviour to self, others and society

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>	<b>Characteristics of a University of Windsor Graduate</b>
At the end of this course, the successful student will know and be able to:	A U of Windsor graduate will have the ability to demonstrate:
Use the Project Guided Approach to develop workflow process and to assess time management skills.	
F. Use the Project Guided Approach to enhance interactions and discussions.	interpersonal and communications skills
G.	teamwork, and personal and group leadership skills
H. Generate diverse, distinct, and high-quality cartographic outputs that clearly communicate specific spatial information and analyses.	creativity and aesthetic appreciation
I.	the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 66-220 (Climatology)**

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>  <u>At the end of this course, the successful student will know and be able to:</u>	<b>Characteristics of a University of Windsor Graduate</b>  <u>A U of Windsor graduate will have the ability to demonstrate:</u>
A. Describe and interpret climate and its variability on spatial and temporal scales, and the controlling factors. Describe climate phenomena, classification of worldwide climate, and the effects of climate on humans and economic activities.	the acquisition, application and integration of knowledge
B. Assess and interpret basic climatic data to predict whether water deficit or water surplus will occur. (also relevant to D) Read and analyze climate maps.	research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
C. Critically assess and interpret climate phenomena.	critical thinking and problem-solving skills
D. Manipulate climatic data using various approaches including calculations and graphing. Read, interpret, and write using the technical terminology used in climatology.	literacy and numeracy skills
E.	responsible behaviour to self, others and society
F. Summarize, discuss, and present the results of climatic data.	interpersonal and communications skills
G. Work in a group situation to assess and discuss climatic data.	teamwork, and personal and group leadership skills
H.	creativity and aesthetic appreciation
I.	the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 03-66-221 Environmental Geomorphology**

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>	<b>Characteristics of a University of Windsor Graduate</b>
<u>At the end of this course, the successful student will know and be able to:</u>	<u>A U of Windsor graduate will have the ability to demonstrate:</u>
A. Discuss the impact of the physical environment on human populations and the impact of human activities on the physical environment.	the acquisition, application and integration of knowledge
B. Explain how 1 % (100-yr) floods are calculated from discharge data Explain how Antarctic and Greenland ice cores are analyzed for evidence of climate change. Explain how river discharge determines channel morphology and sediment carrying capacity. Explain how rising sea level is impacting coastal regions.	research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
C.	critical thinking and problem-solving skills
D. Plot and analyze numerical environmental data and explain their significance in written summaries.	literacy and numeracy skills
	responsible behaviour to self, others and society
F.	interpersonal and communications skills
G.	teamwork, and personal and group leadership skills
H.	creativity and aesthetic appreciation
I.	the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 66-224 Introduction to Geochemistry**

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>  <u>At the end of this course, the successful student will know and be able to:</u>	<b>Characteristics of a University of Windsor Graduate</b>  <u>A U of Windsor graduate will have the ability to demonstrate:</u>
<p>A.</p> <p>Describe the chemical characteristics of natural materials using appropriate terminology. (also relevant to D)</p> <p>Explain the chemical characteristics of natural materials using chemical principles.</p>	the acquisition, application and integration of knowledge
<p>B.</p> <p>Retrieve appropriate chemical data for a given geochemical problem.</p> <p>Critically assess and interpret geochemical literature. (also relevant to C)</p>	research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
<p>C.</p> <p>Interpret chemical analyses of natural materials in terms of chemical principles and equilibria</p> <p>Make decisions about the correct geochemical approach and calculations to be used for a given problem.</p>	critical thinking and problem-solving skills
<p>D.</p> <p>Perform geochemical calculations using appropriate chemical data and theoretical principles</p>	literacy and numeracy skills
<p>E.</p> <p>Explain the consequences of environmental contamination in terms of geochemical processes.</p>	responsible behaviour to self, others and society
<p>F.</p>	interpersonal and communications skills
<p>G.</p>	teamwork, and personal and group leadership skills
<p>H.</p>	creativity and aesthetic appreciation
<p>I.</p>	the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 66-231 Introduction to Petrology**

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>  <u>At the end of this course, the successful student will know and be able to:</u>	<b>Characteristics of a University of Windsor Graduate</b>  <u>A U of Windsor graduate will have the ability to demonstrate:</u>
A. Explain how petrologists use the physical and chemical laws to understand the formation of rocks. Describe how the theory of plate tectonics explains the origins of igneous and metamorphic rocks. Name the most abundant rock types in the crust and in the mantle. Describe the relationship between thermodynamics and petrology. Explain the importance of phase diagrams in understanding of magma composition and metamorphic recrystallization. Explain how magmas are generated and diversified. Describe the characteristics of igneous and metamorphic textures. Depict the origin of igneous rock structure. Define the role of pressure and temperature in metamorphism. Explain the origin of metamorphic facies. Explain the origin of metamorphic belts	the acquisition, application and integration of knowledge
B Explain how major and trace elements are used to define magma types and magma evolution. Explain how radiogenic isotopes are used to understand mantle and crustal evolution. Explain how oxygen isotopes are used to assess magma sources and crustal contamination. Distinguish tectonic setting of igneous rocks using their trace element compositions.	research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
C. Explain why some elements are mobile and others are immobile during alteration. Explain what controls element behavior during rock melting and magma solidification. Explain how the formula of Gibbs free energy is used to assess the stability of mineral phases. Explain of why heat flow plays an important role in the formation of igneous and metamorphic rocks. Explain the basic requirements for using the radiogenic decay law to obtain reliable absolute ages of minerals and rocks. Critically evaluate geochemical data used in the literature to interpret the petrogenesis of igneous and metamorphic rocks. Critically evaluate plume hypothesis proposed for the origin of large igneous provinces.	critical thinking and problem-solving skills
D.	literacy and numeracy skills

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>	<b>Characteristics of a University of Windsor Graduate</b>
<u>At the end of this course, the successful student will know and be able to:</u>	<u>A U of Windsor graduate will have the ability to demonstrate:</u>
Read and critically evaluate current knowledge about igneous and metamorphic rocks. (Also relevant to C) Define and explain the phase rule, partition coefficient, Gibbs free energy formulas Define and explain the radiogenic decay law. Calculate the initial Nd and Sr isotopic compositions of igneous rocks. Calculate the magnitude of trace element anomalies in igneous rocks.	
E.	responsible behaviour to self, others and society
F. Communicate and critically discuss fundamental concepts in igneous and metamorphic petrology.	interpersonal and communications skills
	teamwork, and personal and group leadership skills
	creativity and aesthetic appreciation
	the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 03-66-246 Environmental Decision Analysis**

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>	<b>Characteristics of a University of Windsor Graduate</b>
<u>At the end of this course, the successful student will know and be able to:</u>	<u>A U of Windsor graduate will have the ability to demonstrate:</u>
A. Explain a systematic approach to making decisions on land use in times of global climate change;	the acquisition, application and integration of knowledge
B. Make and analyze decisions about the environment in a rational sequence of steps;	research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
C. Describe the role of uncertainty in mineral-resource exploration and development and its possible impact on the environment. Describe the relationship between Earth processes and land use in the tropics and possible impacts on human health.	critical thinking and problem-solving skills
D.	literacy and numeracy skills
E. Explain the assessment and management of risk to the environment in the context of global climate change. Describe how to deal with conflicting objectives in approaches to land use, with reference to differences in available information;	responsible behaviour to self, others and society
F. Present project proposals in a systematic way to assist the selection of alternatives.	interpersonal and communications skills
G.	teamwork, and personal and group leadership skills
H.	creativity and aesthetic appreciation
I.	the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 03-66-247 Environmental Auditing in Mineral Resource Development**

<b>Learning Outcomes</b>	<b>Characteristics of a University of Windsor Graduate</b>
<p><i>This is a sentence completion exercise.</i></p> <p><u>At the end of this course, the successful student will know and be able to:</u></p>	<p><u>A U of Windsor graduate will have the ability to demonstrate:</u></p>
<p>A. Explain the need for different approaches to environmental auditing and outline the phases of mining and product transportation and use. Describe the main elements of an environmental audit and its application to exploration for mineral resources.</p>	<p>the acquisition, application and integration of knowledge</p>
<p>B. Make and analyze decisions about mineral resource development in a rational sequence of steps.</p>	<p>research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>
<p>C. Describe applications of environmental auditing of resource development in more developed and less developed countries.</p>	<p>critical thinking and problem-solving skills</p>
<p>D.</p>	<p>literacy and numeracy skills</p>
<p>E. Describe applications of environmental auditing to safe resource processing and product transportation and use. Explain the possible environmental impacts of site abandonment on society and the environment and how an audit is brought to a conclusion.</p>	<p>responsible behaviour to self, others and society</p>
<p>F. make a case for increased environmental auditing in times of global climate change.</p>	<p>interpersonal and communications skills</p>
<p>G.</p>	<p>teamwork, and personal and group leadership skills</p>
<p>H.</p>	<p>creativity and aesthetic appreciation</p>
<p>I.</p>	<p>the ability and desire for continuous learning</p>

**COURSE NUMBER AND TITLE: 66-320 Analysis of Environmental Materials (revised)**

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>  <u>At the end of this course, the successful student will know and be able to:</u>	<b>Characteristics of a University of Windsor Graduate</b>  <u>A U of Windsor graduate will have the ability to demonstrate:</u>
<p>A.</p> <p>Explain the principles and instrumentation for analytical methods used for chemical analysis of environmental materials.</p> <p>Make decisions about appropriate approaches to sample preparation and analysis.</p> <p>Assess the quality of data. (also relevant to C)</p> <p>Process and interpret data from various analytical methods and explain how they may relate to one another. (also relevant to C)</p>	the acquisition, application and integration of knowledge
<p>B.</p> <p>Assess the suitability of analytical approaches to particular problems or types of samples.</p>	research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
<p>C.</p> <p>Assess the quality of chemical data on environmental materials and identify problems and errors in such data.</p>	critical thinking and problem-solving skills
<p>D.</p> <p>Carry out calculations based on data output from various instruments.</p> <p>Statistically assess data quality (also relevant to C).</p> <p>Use appropriate terminology to describe the physical and chemical characteristics of natural materials.</p>	literacy and numeracy skills
<p>E.</p> <p>Explain safety issues related to various instruments;</p> <p>Safely and effectively operate analytical equipment.</p>	responsible behaviour to self, others and society
<p>F.</p> <p>Communicate the chemical and physical characteristics of natural and anthropogenic materials using appropriate technical terminology.</p> <p>Explain and justify the merits of various analytical approaches.</p>	interpersonal and communications skills
<p>G</p> <p>Effectively work in teams during field sampling and measurement.</p>	teamwork, and personal and group leadership skills
	creativity and aesthetic appreciation

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>	<b>Characteristics of a University of Windsor Graduate</b>
At the end of this course, the successful student will know and be able to:	<u>A U of Windsor graduate will have the ability to demonstrate:</u>
	the ability and desire for continuous learning

**COURSE NUMBER AND TITLE:03-66-328 Environmental Geochemistry**

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>	<b>Characteristics of a University of Windsor Graduate</b>
<u>At the end of this course, the successful student will know and be able to:</u>	<u>A U of Windsor graduate will have the ability to demonstrate:</u>
A. Describe the global cycling of elements in environmental systems. Discuss the role of element cycles and isotopes in the environment.	the acquisition, application and integration of knowledge
B. Collect, describe, and interpret geochemical field and laboratory data. (also relevant to D) Prepare written scientific reports. (also relevant to F)	research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
C. Critically evaluate the geochemical behavior of metals in the environment	critical thinking and problem-solving skills
D. Write a research term paper on an environmental geochemistry topic. (also relevant to B)	literacy and numeracy skills
E.	responsible behaviour to self, others and society
F. Present a seminar on environmental geochemistry	interpersonal and communications skills
G. Interact with peers in a group setting to discuss environmental geochemistry topics. (also relevant to G)	teamwork, and personal and group leadership skills
H.	creativity and aesthetic appreciation

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>	<b>Characteristics of a University of Windsor Graduate</b>
At the end of this course, the successful student will know and be able to:	A U of Windsor graduate will have the ability to demonstrate:
I.	the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 66-330 Environmental Geophysics**

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>  <u>At the end of this course, the successful student will know and be able to:</u>	<b>Characteristics of a University of Windsor Graduate</b>  <u>A U of Windsor graduate will have the ability to demonstrate:</u>
<p>A.</p> <p>Describe the fundamental physics of the major geophysical techniques that may be applied in an environmental context.</p> <p>Interpret the major physical parameter that governs each geophysical technique.</p>	the acquisition, application and integration of knowledge
<p>B.</p> <p>Design a geophysical survey based on the nature of the problem investigated, collect data using different instruments, retrieve and access the collected data for evaluation and interpretation.</p>	research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
<p>C.</p> <p>Critically assess and identify environmental problems that require the use of geophysical techniques for solutions.</p> <p>Interpret geophysical data.</p>	critical thinking and problem-solving skills
<p>D.</p> <p>Manipulate geophysical data using various approaches including calculations and graphing.</p> <p>Produce 'conceptual models' retrievable from geophysical measurements.</p> <p>Write professional reports.</p>	literacy and numeracy skills
<p>E.</p> <p>Use geophysical instruments and other facilities in a responsible manner.</p>	responsible behaviour to self, others and society
<p>F.</p> <p>Summarize, discuss, and present the results of environmental geophysical analyses.</p>	interpersonal and communications skills
<p>G.</p> <p>Work in a group situation to assess and discuss geophysical data.</p>	teamwork, and personal and group leadership skills
<p>H.</p>	creativity and aesthetic appreciation

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>	<b>Characteristics of a University of Windsor Graduate</b>
<u>At the end of this course, the successful student will know and be able to:</u>	<u>A U of Windsor graduate will have the ability to demonstrate:</u>
I.	the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 66-332 Issues in Resource and Environmental Systems**

<b>Learning Outcomes</b>	<b>Characteristics of a University of Windsor Graduate</b>
<p><i>This is a sentence completion exercise.</i></p> <p><u>At the end of this course, the successful student will know and be able to:</u></p>	<p><u>A U of Windsor graduate will have the ability to demonstrate:</u></p>
<p>A.</p> <p>Analyze, interpret, and explain the processes governing resource and environmental systems. (also relevant to C)</p> <p>Explain linear and nonlinear feedback mechanisms in resource and environmental systems.</p> <p>Describe relationships between social issues and biosphere stability.</p> <p>Describe issues in environmental resource management.</p>	<p>the acquisition, application and integration of knowledge</p>
<p>B.</p> <p>Analyze resource and environmental data and issues from scientific and social perspectives. (also relevant to D)</p> <p>Evaluate theoretical approaches to examining and managing resource and environmental systems.</p>	<p>research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>
<p>C.</p> <p>Critically evaluate diverse data sets and approaches to sustainable development and resource use.</p> <p>Develop integrated resource management strategies for sustainable development.</p>	<p>critical thinking and problem-solving skills</p>
<p>D.</p> <p>Analyze quantitative data to assess and characterize resource systems and usage by human populations</p>	<p>literacy and numeracy skills</p>
<p>E.</p> <p>Recommend best practices and strategies for managing and sustaining a range of environmental and natural resources.</p>	<p>responsible behaviour to self, others and society</p>
<p>F.</p> <p>Present, justify, and defend resource and environmental issues in an informed, reasoned, and logical manner, both orally and in writing.</p>	<p>interpersonal and communications skills</p>
<p>G.</p> <p>Formulate, debate, and defend positions on environmental and resource management topics individually and as part of a team.</p>	<p>teamwork, and personal and group leadership skills</p>
<p>H.</p>	<p>creativity and aesthetic appreciation</p>

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>	<b>Characteristics of a University of Windsor Graduate</b>
At the end of this course, the successful student will know and be able to:	A U of Windsor graduate will have the ability to demonstrate:
I.	the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 66-334 Environmental Impact Assessment**

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>  <u>At the end of this course, the successful student will know and be able to:</u>	<b>Characteristics of a University of Windsor Graduate</b>  <u>A U of Windsor graduate will have the ability to demonstrate:</u>
A. Explain the principles, procedures, and practices governing environmental impact assessment (EIA). Describe the theoretical and practical purposes and limitations of the EIA process. Describe the specific role of provincial and federal regulations in preparation and submission of EIA reports. Use applicable policy and guidelines in environmental assessment projects.	the acquisition, application and integration of knowledge
B. Acquire, assess, and select relevant information to complete EIA reports from texts, policy papers, and government monographs. Use appropriate field methods to scope, screen, and conduct baseline studies. (also relevant to D)	research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
C. Evaluate diverse data types and employ screening tools to critically evaluate approaches to site development options that mitigate environmental impact. (also relevant to C)	critical thinking and problem-solving skills
D. Prepare EIA questionnaires, surveys and reports. Use environmental matrices to quantify potential environmental impacts. Apply a number of EIA tools, such as component and weighted impact interaction matrices, extrapolation techniques, sensitivity analysis, cumulative assessment methods, and risk and strategic assessment procedures.	literacy and numeracy skills
E. Propose innovative strategies to mitigate environmental impacts. Incorporate the specific needs of diverse stakeholders (e.g. aboriginal groups) during the EIA process.	responsible behaviour to self, others and society
F. Present, justify, and defend EIA projects using oral argument and in accordance with relevant professional standards.	interpersonal and communications skills

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>	<b>Characteristics of a University of Windsor Graduate</b>
At the end of this course, the successful student will know and be able to:	A U of Windsor graduate will have the ability to demonstrate:
G.	teamwork, and personal and group leadership skills
H.	creativity and aesthetic appreciation
I.	the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 66-370 Climate Change**

<b>Learning Outcomes</b>	<b>Characteristics of a University of Windsor Graduate</b>
<p><i>This is a sentence completion exercise.</i></p> <p><u>At the end of this course, the successful student will know and be able to:</u></p>	<p><u>A U of Windsor graduate will have the ability to demonstrate:</u></p>
<p>A.</p> <p>Explain the major processes and systems governing climate change, including past climatic events and their relationship to current climate change.</p> <p>Assess the role of global climate models in projecting future impacts of policies, and interpret the importance of current international climate change policies.</p>	<p>the acquisition, application and integration of knowledge</p>
<p>B.</p> <p>Access scientific literature (journals) and assess the quality of data provided by 'skeptical environmentalists'.</p>	<p>research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>
<p>C.</p> <p>Critically assess the role of media, corporations, politicians and education in public perceptions about climate change.</p>	<p>critical thinking and problem-solving skills</p>
<p>D.</p> <p>Use accurate terminology and correct referencing systems when writing research papers.</p>	<p>literacy and numeracy skills</p>
<p>E.</p>	<p>responsible behaviour to self, others and society</p>
<p>F.</p> <p>Communicate opinions of the effects of climate change on various topics (such as economy, water resources, food production, biodiversity).</p>	<p>interpersonal and communications skills</p>
<p>G.</p> <p>Create effective group presentations on climate change impacts.</p>	<p>teamwork, and personal and group leadership skills</p>
<p>H.</p>	<p>creativity and aesthetic appreciation</p>
<p>I.</p>	<p>the ability and desire for continuous learning</p>

**COURSE NUMBER AND TITLE: 66-380 Field Methods for Environmental Science**

<b>Learning Outcomes</b>	<b>Characteristics of a University of Windsor Graduate</b>
<p><i>This is a sentence completion exercise.</i></p> <p><u>At the end of this course, the successful student will know and be able to:</u></p>	<p><u>A U of Windsor graduate will have the ability to demonstrate:</u></p>
<p>A.</p> <p>Collect samples of environmental media (e.g., air, water, soil, biological tissues) following environmental site assessment protocols. Characterize samples using field-based methods and schema (e.g., Unified Soil Classification Scheme).</p> <p>Measure ambient environmental conditions and media using field instruments (e.g., pH, temperature, specific conductance, geophysical instrumentation).</p> <p>Collect spatial measurements of site features and sampling locations using appropriate instrumentation and techniques (e.g., tapes, level, compass, GPS).</p> <p>Design and implement a gridded sampling exercise.</p> <p>Generate scaled maps illustrating site features, sampling locations, and field data.</p> <p>Prepare scaled and contoured data plots (e.g., geophysical measurements).</p>	<p>the acquisition, application and integration of knowledge</p>
<p>B.</p> <p>Create sampling plans using published information and online resources, such as soil surveys, geologic maps, aerial photographs.</p>	<p>B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>
<p>C.</p> <p>Design, implement, and explain sampling strategies for various environmental media and site conditions. (also relevant to F)</p> <p>Interpret and explain field measurements and sampling data in the context of environmental processes (e.g., anomaly identification) and site conditions.</p>	<p>C. critical thinking and problem-solving skills</p>
<p>D.</p> <p>Maintain detailed and accurate notes of all field activities, observations, and data.</p> <p>Prepare detailed reports documenting all field activities, observations, data, and interpretations.</p> <p>Describe sources of error and uncertainty in geochemical and geophysical field measurements and explain the impact on data quality/reliability.</p>	<p>D. literacy and numeracy skills</p>
<p>E.</p>	<p>E. responsible behaviour to self, others and society</p>

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>	<b>Characteristics of a University of Windsor Graduate</b>
<u>At the end of this course, the successful student will know and be able to:</u>	<u>A U of Windsor graduate will have the ability to demonstrate:</u>
Conduct environmental sampling and monitoring activities responsibly (e.g., restore sites to previous condition, remove all sampling residues and wastes from sites).	
F. Explain and defend sampling strategies, observations, and interpretations during in-field discussions.	F. interpersonal and communications skills
G. Work in teams in the field to collect samples, conduct measurements, and formulate interpretations.	G. teamwork, and personal and group leadership skills
H.	H. creativity and aesthetic appreciation
I.	I. the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 66-381 Field Methods for Environmental Studies**

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>  <u>At the end of this course, the successful student will know and be able to:</u>	<b>Characteristics of a University of Windsor Graduate</b>  <u>A U of Windsor graduate will have the ability to demonstrate:</u>
<p>A.</p> <p>Collect samples of environmental media (e.g., air, water, soil, biological tissues) following resource management protocols.</p> <p>Recognize and describe vulnerable plant and animal communities.</p> <p>Measure ambient environmental conditions and media using field instruments (e.g., pH, temperature, dissolved oxygen, nitrate and phosphate levels, water discharge rate).</p> <p>Collect spatial measurements of site features and sampling locations using appropriate instrumentation and techniques (e.g., tape, level, compass, GPS, weather instrumentation).</p> <p>Generate scaled maps illustrating site features, sampling locations, and field data.</p> <p>Identify and describe physiographic regions and landforms.</p>	the acquisition, application and integration of knowledge
<p>B.</p> <p>Create sampling plans using published information and online resources, such as soil surveys, geologic maps, aerial photographs.</p>	research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
<p>C.</p> <p>Design, implement, and explain sampling strategies for various environmental media and site conditions.</p> <p>Interpret and explain field measurements and sampling data in the context of environmental processes (e.g., anomaly identification) and site conditions. (also relevant to F)</p>	critical thinking and problem-solving skills
<p>D.</p> <p>Maintain detailed and accurate notes of all field activities, observations, and data.</p> <p>Prepare detailed reports documenting all field activities, observations, data, and interpretations.</p>	literacy and numeracy skills
<p>E.</p> <p>Conduct environmental sampling and monitoring activities responsibly (e.g., restore sites to previous condition, remove all sampling residues and wastes from sites).</p>	responsible behaviour to self, others and society
<p>F.</p> <p>Explain and defend sampling strategies, observations, and interpretations</p>	interpersonal and communications skills

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>	<b>Characteristics of a University of Windsor Graduate</b>
At the end of this course, the successful student will know and be able to:	A U of Windsor graduate will have the ability to demonstrate:
G. Work in teams in the field to collect samples, conduct measurements, and formulate interpretations.	teamwork, and personal and group leadership skills
H.	creativity and aesthetic appreciation
I.	the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 66-337 Hydrogeology**  
 (formerly 66-436)

<b>Learning Outcomes</b>	<b>Characteristics of a University of Windsor Graduate</b>
<p><i>This is a sentence completion exercise.</i></p> <p><u>At the end of this course, the successful student will know and be able to:</u></p>	<p><u>A U of Windsor graduate will have the ability to demonstrate:</u></p>
<p>A.</p> <p>Describe the fundamental physics and properties of groundwater flow in geological materials.</p> <p>Assess and interpret the effect of a variety of hydraulic properties and geological constraints on groundwater flow, recharge, discharge, and storage.</p> <p>Describe the processes of solute transport and heat transfer in groundwater system and the controlling factors.</p>	<p>the acquisition, application and integration of knowledge</p>
<p>B.</p> <p>Assess flow problems using flow nets, analyze field test data in relation to aquifer characteristics (e.g. pumping tests, slug tests), and calculate head, pressure, and flow velocity. (also relevant to D)</p>	<p>research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>
<p>C.</p> <p>Critically assess hydraulic properties of fluids and geological materials.</p> <p>Address groundwater flow and/or solute transport in the context of environment-oriented applications.</p>	<p>critical thinking and problem-solving skills</p>
<p>D.</p> <p>Manipulate hydrogeological data using various approaches including calculations and graphing.</p> <p>Apply analytical and numerical approaches to address groundwater flow and solute transport.</p>	<p>literacy and numeracy skills</p>
<p>E.</p>	<p>responsible behaviour to self, others and society</p>
<p>F.</p> <p>Summarize, discuss, and present the results of hydrogeological data.</p>	<p>interpersonal and communications skills</p>
<p>G.</p> <p>Work in a group situation to assess and discuss hydrological data. (also relevant to G)</p>	<p>teamwork, and personal and group leadership skills</p>
<p>H.</p>	<p>creativity and aesthetic appreciation</p>

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>	<b>Characteristics of a University of Windsor Graduate</b>
<u>At the end of this course, the successful student will know and be able to:</u>	<u>A U of Windsor graduate will have the ability to demonstrate:</u>
I.	the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 66-440 Biogeochemistry**

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>  <u>At the end of this course, the successful student will know and be able to:</u>	<b>Characteristics of a University of Windsor Graduate</b>  <u>A U of Windsor graduate will have the ability to demonstrate:</u>
<p>A.</p> <p>Discuss the role of microbes in geological transformations of our planet both in the present and the past.</p> <p>Explain the role of microbes in early earth systems and explain how microorganisms control the chemistry of Earth (and potentially other planets).</p> <p>Describe and explain processes leading to biomineralization and sorption mechanisms in ecosystems.</p>	the acquisition, application and integration of knowledge
<p>B.</p> <p>Use models to describe contaminant sorption in environmental systems.</p> <p>Apply novel molecular tools to assess geochemical conditions including the techniques of microbiology, molecular biology, mineralogy and geochemistry.</p>	research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
<p>C.</p> <p>Interpret key microbial activities that can be used in a range of biotechnological processes.</p> <p>Discuss the survival and resistance of microorganisms in extreme environments (both terrestrial and extraterrestrial).</p>	critical thinking and problem-solving skills
<p>D.</p> <p>Write a research term paper on a biogeochemistry topic. (also relevant to B)</p>	literacy and numeracy skills
<p>E.</p>	responsible behaviour to self, others and society
<p>F.</p> <p>Present a seminar on a biogeochemistry topic</p>	interpersonal and communications skills
<p>G.</p>	teamwork, and personal and group leadership skills
<p>H.</p>	creativity and aesthetic appreciation
<p>I.</p>	the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 66-499: Thesis Research in Environmental Science**

<b>Learning Outcomes</b>	<b>Characteristics of a University of Windsor Graduate</b>
<p><i>This is a sentence completion exercise.</i></p> <p><u>At the end of this course, the successful student will know and be able to:</u></p>	<p><u>A U of Windsor graduate will have the ability to demonstrate:</u></p>
<p>A. Collect environmental field data and/or data on environmental materials using appropriate methods and protocols</p>	<p>the acquisition, application and integration of knowledge</p>
<p>B. Define scientific questions using previously published data and models. Define testable scientific hypotheses and apply the scientific method to those hypotheses Interpret data to test the defined hypotheses (also relevant to C.)</p>	<p>research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>
<p>C. Interpret data to test the defined hypotheses (also relevant to B.) Explain data and hypotheses in the context of published data and models.</p>	<p>critical thinking and problem-solving skills</p>
<p>D. Write theses that describe, interpret and discuss hypotheses and data in the context of previously published studies. (also relevant to C)</p>	<p>literacy and numeracy skills</p>
	<p>responsible behaviour to self, others and society</p>
<p>F. Synthesize and present research results and interpretations in public lectures.</p>	<p>interpersonal and communications skills</p>
<p>G. Demonstrate personal leadership in carrying out independent research.</p>	<p>teamwork, and personal and group leadership skills</p>
	<p>creativity and aesthetic appreciation</p>
	<p>the ability and desire for continuous learning</p>

**University of Windsor**  
**Program Development Committee**

\*5.12      **MSc in Earth Science – Learning Outcomes**

**Item for:** Information

<b>Program Learning Outcomes (Degree Level Expectations)</b>	<b>Characteristics of a University of Windsor Graduate</b>	<b>OCGS-approved Graduate Degree Level Expectations</b>
<p><i>This is a sentence completion exercise. Please provide a minimum of 1 learning outcome for each of the boxes associated with a graduate attribute.</i></p> <p><u>At the end of this program, the successful student will know and be able to:</u></p>	<p><u>A UWindsor graduate will have the ability to demonstrate:</u></p>	
<ul style="list-style-type: none"> <li>• Describe and explain features, processes, and materials relevant to earth and environmental systems using appropriate scientific language, particularly as they pertain to their individual research project.</li> <li>• Interpret observations and data in terms of earth processes.</li> <li>• Apply appropriate methodologies to acquire data and use these data to arrive at scientifically-sound interpretations of earth processes.</li> <li>• Apply theoretical and practical knowledge to make robust interpretations and provide solutions to problems in earth and environmental science involving the design of geological models and the acquisition and processing of various types of physical and chemical data.</li> </ul>	<p>A. the acquisition, application and integration of knowledge</p>	<ol style="list-style-type: none"> <li>1. Depth and Breadth of Knowledge</li> <li>2. Research and Scholarship</li> <li>3. Level of Application of Knowledge</li> <li>6. Awareness of Limits of Knowledge</li> </ol>
<ul style="list-style-type: none"> <li>• Execute scientific experiments and enquiries that focus on earth and environmental science problems and issues (also relevant to C)</li> <li>• Acquire, manipulate, interpret, and critically evaluate large and/or complex data sets using appropriate tools and statistical approaches (also relevant to D).</li> <li>• Develop and test hypotheses based on theoretical, empirical, and laboratory data through rigorous application of the scientific method (also relevant to C)</li> </ul>	<p>B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>	<ol style="list-style-type: none"> <li>2. Research and Scholarship</li> <li>3. Level of Application of Knowledge</li> <li>6. Awareness of Limits of Knowledge</li> </ol>
<ul style="list-style-type: none"> <li>• Critically evaluate their own and others' data and hypotheses pertaining to natural processes and problems.</li> <li>• Develop innovative approaches for assessing and resolving issues and problems in earth and environmental science through the application of sound scientific methodology.</li> </ul>	<p>C. critical thinking and problem-solving skills</p>	<ol style="list-style-type: none"> <li>1. Depth and Breadth of Knowledge</li> <li>2. Research and Scholarship</li> <li>3. Level of Application of Knowledge</li> <li>4. Professional Capacity/autonomy</li> </ol>

Program Learning Outcomes (Degree Level Expectations) <i>This is a sentence completion exercise. Please provide a minimum of 1 learning outcome for each of the boxes associated with a graduate attribute.</i>	Characteristics of a University of Windsor Graduate	OCGS-approved Graduate Degree Level Expectations
<u>At the end of this program, the successful student will know and be able to:</u>	<u>A UWindsor graduate will have the ability to demonstrate:</u>	
		6. Awareness of Limits of Knowledge
<ul style="list-style-type: none"> <li>• Read, critique, and discuss scientific articles, and prepare and present research projects, papers, and seminars.</li> </ul>	D. literacy and numeracy skills	2. Research and Scholarship 5. Level of Communication Skills
<ul style="list-style-type: none"> <li>• Demonstrate and advocate awareness of social, ethical, and professional responsibilities in earth and environmental science issues.</li> </ul>	E. responsible behaviour to self, others and society	4. Professional Capacity/Autonomy 6. Awareness of Limits of Knowledge
<ul style="list-style-type: none"> <li>• Effectively communicate scientific ideas, data, and interpretations in oral and written forms appropriate to the geoscience community.</li> </ul>	F. interpersonal and communications skills	5. Level of Communication Skills
<ul style="list-style-type: none"> <li>• Interact and function effectively within diverse professional groups and multi-disciplinary teams (also relevant to F).</li> <li>• Integrate and apply scientific knowledge in a leadership role (also relevant to E).</li> </ul>	G. teamwork, and personal and group leadership skills	4. Professional Capacity/Autonomy 5. Level of Communication Skills
<ul style="list-style-type: none"> <li>• Creatively present scientific data and their interpretation in novel ways to address earth science problems and increase scientific and societal impact and relevance (also relevant to C, E and F)</li> </ul>	H. creativity and aesthetic appreciation	2. Research and Scholarship 4. Professional Capacity/autonomy 6. Awareness of Limits of Knowledge
<ul style="list-style-type: none"> <li>• Apply knowledge of earth science to evaluate current issues related to resources and the environment</li> </ul>	I. the ability and desire for continuous learning	4. Professional Capacity/autonomy

**University of Windsor**  
**Program Development Committee**

\*5.13 **PhD in Earth Science – Learning Outcomes**

**Item for:** **Information**

**PROGRAM TITLE: Earth Science PhD**

<b>Program Learning Outcomes (Degree Level Expectations)</b>	<b>Characteristics of a University of Windsor Graduate</b>	<b>OCGS-approved Graduate Degree Level Expectations</b>
<p><i>This is a sentence completion exercise. Please provide a minimum of 1 learning outcome for each of the boxes associated with a graduate attribute.</i></p> <p><u>At the end of this program, the successful student will know and be able to:</u></p>	<p><u>A UWindsor graduate will have the ability to demonstrate:</u></p>	
<ul style="list-style-type: none"> <li>• Comprehensively describe and explain features, processes, and materials relevant to earth and environmental systems using appropriate scientific language.</li> <li>• Interpret and defend observations and data in terms of earth processes and the current state of scientific knowledge.</li> <li>• Select and apply appropriate methodologies to acquire data and use these data to arrive at scientifically-sound interpretations of earth processes.</li> <li>• Apply theoretical and practical knowledge to make robust interpretations and provide solutions to problems in earth and environmental science involving the design of geological models and the acquisition and processing of various types of physical and chemical data.</li> </ul>	<p>A. the acquisition, application and integration of knowledge</p>	<ol style="list-style-type: none"> <li>1. Depth and Breadth of Knowledge</li> <li>2. Research and Scholarship</li> <li>3. Level of Application of Knowledge</li> <li>6. Awareness of Limits of Knowledge</li> </ol>
<ul style="list-style-type: none"> <li>• Design and execute scientific experiments and enquiries that focus on earth and environmental science problems and issues (also relevant to C)</li> <li>• Acquire, manipulate, interpret, and critically evaluate large and/or complex data sets using appropriate tools and statistical approaches (also relevant to D).</li> <li>• Develop and test hypotheses based on theoretical, empirical, and laboratory data through rigorous application of the scientific method (also relevant to C)</li> <li>• Demonstrate how the outcome of their research activities increases the state of knowledge and understanding of specific and relevant earth and environmental science issues</li> </ul>	<p>B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>	<ol style="list-style-type: none"> <li>2. Research and Scholarship</li> <li>3. Level of Application of Knowledge</li> <li>6. Awareness of Limits of Knowledge</li> </ol>

<b>Program Learning Outcomes (Degree Level Expectations)</b> <i>This is a sentence completion exercise. Please provide a minimum of 1 learning outcome for each of the boxes associated with a graduate attribute.</i>	<b>Characteristics of a University of Windsor Graduate</b>	<b>OCGS-approved Graduate Degree Level Expectations</b>
<u>At the end of this program, the successful student will know and be able to:</u>	<u>A UWindsor graduate will have the ability to demonstrate:</u>	
<ul style="list-style-type: none"> <li>Critically evaluate their own and others' data and hypotheses pertaining to natural processes and problems.</li> <li>Develop innovative approaches for assessing and resolving issues and problems in earth and environmental science through the application of sound scientific methodology.</li> </ul>	C. critical thinking and problem-solving skills	1. Depth and Breadth of Knowledge 2. Research and Scholarship 3. Level of Application of Knowledge 4. Professional Capacity/autonomy 6. Awareness of Limits of Knowledge
<ul style="list-style-type: none"> <li>Read, critique and discuss scientific articles, and prepare and present research projects, papers and seminars.</li> </ul>	D. literacy and numeracy skills	2. Research and Scholarship 5. Level of Communication Skills
<ul style="list-style-type: none"> <li>Demonstrate and advocate awareness of social, ethical, and professional responsibilities in earth and environmental science issues.</li> </ul>	E. responsible behaviour to self, others and society	4. Professional Capacity/Autonomy 6. Awareness of Limits of Knowledge
<ul style="list-style-type: none"> <li>Effectively communicate scientific ideas, data, and interpretations in oral and written forms appropriate to the geoscience community.</li> </ul>	F. interpersonal and communications skills	5. Level of Communication Skills
<ul style="list-style-type: none"> <li>Interact and function effectively within diverse professional groups and multi-disciplinary teams (also relevant to F).</li> <li>Integrate and apply scientific knowledge in a leadership role (also relevant to E).</li> </ul>	G. teamwork, and personal and group leadership skills	4. Professional Capacity/Autonomy 5. Level of Communication Skills
<ul style="list-style-type: none"> <li>Creatively present scientific data and their interpretation in novel ways to address earth science problems and increase scientific and societal impact and relevance (also relevant to C, E and F)</li> </ul>	H. creativity and aesthetic appreciation	2. Research and Scholarship 4. Professional Capacity/autonomy 6. Awareness of Limits of Knowledge
<ul style="list-style-type: none"> <li>Apply knowledge of earth science to evaluate current issues related to resources and the environment</li> </ul>	I. the ability and desire for continuous learning	4. Professional Capacity/autonomy

**University of Windsor**  
**Program Development Committee**

**\*5.14            Master of Computer Science – Learning Outcomes**

**Item for      Information**

**PROGRAM TITLE: Master of Computer Science**

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<b>Program Learning Outcomes (Degree Level Expectations)</b> <i>This is a sentence completion exercise. Please provide a minimum of 1 learning outcome for each of the boxes associated with a graduate attribute.</i>	<b>Characteristics of a University of Windsor Graduate</b>	<b>OCGS-approved Graduate Degree Level Expectations</b>
<u>At the end of this program, the successful student will know and be able to:</u>	<u>A UWindsor graduate will have the ability to demonstrate:</u>	
A. Explain and apply core Computer Science theoretical concepts, practices, and technologies, in areas such as algorithms, data analysis and management, machine learning, artificial intelligence, networking, bioinfomatics.	A. the acquisition, application and integration of knowledge	<ol style="list-style-type: none"> <li>1. Depth and Breadth of Knowledge</li> <li>2. Research and Scholarship</li> <li>3. Level of Application of Knowledge</li> <li>6. Awareness of Limits of Knowledge</li> </ol>
B. <i>Design and conduct experiments to evaluate the average case performance of algorithms.</i>  Engage in significant research in their area of specialization within Computer Science and/or in projects that respond to community and industry needs.  Conceive, design, implement and adapt substantial processes of research with scholarly integrity.	B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)	<ol style="list-style-type: none"> <li>2. Research and Scholarship</li> <li>3. Level of Application of Knowledge</li> <li>6. Awareness of Limits of Knowledge</li> </ol>
C. Identify, formulate, and solve problems employing Computer Science knowledge.  Analyze existing theories, techniques and tools relevant to their specific field of research within Computer Science.	C. critical thinking and problem-solving skills	<ol style="list-style-type: none"> <li>1. Depth and Breadth of Knowledge</li> <li>2. Research and Scholarship</li> <li>3. Level of Application of Knowledge</li> <li>4. Professional Capacity/autonomy</li> <li>6. Awareness of Limits of Knowledge</li> </ol>
D. Identify, analyze, and synthesize scholarly literature relating to the field of Computer Science.	D. literacy and numeracy skills	<ol style="list-style-type: none"> <li>2. Research and Scholarship</li> <li>5. Level of Communication Skills</li> </ol>

<b>Program Learning Outcomes (Degree Level Expectations)</b> <i>This is a sentence completion exercise. Please provide a minimum of 1 learning outcome for each of the boxes associated with a graduate attribute.</i>	<b>Characteristics of a University of Windsor Graduate</b>	<b>OCGS-approved Graduate Degree Level Expectations</b>
<u>At the end of this program, the successful student will know and be able to:</u>	<u>A UWindsor graduate will have the ability to demonstrate:</u>	
E. Practice ethical behaviour by adhering to codes of conduct specified by the university and the discipline.	E. responsible behaviour to self, others and society	4. Professional Capacity/Autonomy 6. Awareness of Limits of Knowledge
F. Communicate effectively both in speaking and writing about Computer Science topics using appropriate media (also relevant to G)	F. interpersonal and communications skills	5. Level of Communication Skills
G. Demonstrate ability to mediate conflicts in a research team environment.	G. teamwork, and personal and group leadership skills	4. Professional Capacity/Autonomy 5. Level of Communication Skills
H. Design workable solutions to problems in their area of research.	H. creativity and aesthetic appreciation	2. Research and Scholarship 4. Professional Capacity/autonomy 6. Awareness of Limits of Knowledge
I. Identify needs, issues, or areas of growth in industry.  Reflect on their own strengths and limits, identifying areas of improvements.	I. the ability and desire for continuous learning	4. Professional Capacity/autonomy

**University of Windsor**  
**Program Development Committee**

**\*5.15                    PhD in Computer Science – Learning Outcomes**

**Item for:**              **Information**

**PROGRAM TITLE: PhD in Computer Science**

<b>Program Learning Outcomes (Degree Level Expectations)</b>  <i>This is a sentence completion exercise. Please provide a minimum of 1 learning outcome for each of the boxes associated with a graduate attribute.</i>	<b>Characteristics of a University of Windsor Graduate</b>	<b>OCGS-approved Graduate Degree Level Expectations</b>
<u>At the end of this program, the successful student will know and be able to:</u>	<u>A UWindsor graduate will have the ability to demonstrate:</u>	
A.  Explain and apply core Computer Science theoretical concepts, practices, and technologies, in areas such as algorithms, data analysis and management, machine learning, artificial intelligence, networking, bioinformatics.	A. the acquisition, application and integration of knowledge	1. Depth and Breadth of Knowledge 2. Research and Scholarship 3. Level of Application of Knowledge 6. Awareness of Limits of Knowledge
B.  Design and conduct experiments to evaluate the average case performance of algorithms.  Engage in significant research in their area of specialization within Computer Science and/or in projects that respond to community and industry needs.  Conceive, design, implement and adapt substantial processes of research with scholarly integrity.  Critically analyze, evaluate, and synthesize new and complex ideas.	B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)	2. Research and Scholarship 3. Level of Application of Knowledge 6. Awareness of Limits of Knowledge
C.  Identify, formulate, and solve problems employing Computer Science knowledge.  Adapt existing theories, techniques and tools relevant to their specific field of research within Computer Science.  Refine existing techniques and develop new ones in the process of solving complex research problems.  Design and execute research plans.	C. critical thinking and problem-solving skills	1. Depth and Breadth of Knowledge 2. Research and Scholarship 3. Level of Application of Knowledge 4. Professional Capacity/autonomy 6. Awareness of Limits of Knowledge

<b>Program Learning Outcomes (Degree Level Expectations)</b> <i>This is a sentence completion exercise. Please provide a minimum of 1 learning outcome for each of the boxes associated with a graduate attribute.</i>	<b>Characteristics of a University of Windsor Graduate</b>	<b>OCGS-approved Graduate Degree Level Expectations</b>
<u>At the end of this program, the successful student will know and be able to:</u>	<u>A UWindsor graduate will have the ability to demonstrate:</u>	
Produce original research of sufficient quality for publications in a peer-reviewed venue.		
D. Identify, analyze, and synthesize scholarly literature relating to the field of Computer Science.	D. literacy and numeracy skills	2. Research and Scholarship 5. Level of Communication Skills
E. Adhere to codes of ethical conduct specified by the university and the discipline such as Association for Computing Machinery (ACM) Code of Ethics and Professional Conduct.	E. responsible behaviour to self, others and society	4. Professional Capacity/Autonomy 6. Awareness of Limits of Knowledge
F. Communicate effectively both in speaking and writing about Computer Science topics using appropriate media.  Contribute actively in the academic community by communicating with peers, the larger scholarly community and with society in general about their areas of expertise, as evidence by peer review of scholarly work, involvement in the conferences and workshops, memberships in professional organization.  Create a small network of research collaborators.	F. interpersonal and communications skills	5. Level of Communication Skills
G. Demonstrate effective collaboration in team oriented activities (Also relevant to F).	G. teamwork, and personal and group leadership skills	4. Professional Capacity/Autonomy 5. Level of Communication Skills
H. Design efficient, innovative, functional, and elegant solutions to complex problems.	H. creativity and aesthetic appreciation	2. Research and Scholarship 4. Professional Capacity/autonomy 6. Awareness of Limits of Knowledge
I. Demonstrate the capacity to carry out original research in the field as evidence by publications in peer-reviewed venues.	I. the ability and desire for continuous learning	4. Professional Capacity/autonomy

**University of Windsor  
Program Development Committee**

**\*5.16: Languages, Literature and Culture - Learning Outcomes**

Item for: **Information**

**The following is a list of the course learning outcomes:**

- 11-161 Introduction to Greek Civilization
- 11-162 Introduction to Roman Civilization
- 11-211 Greek Prose
- 11-212 Greek Poetry
- 11-221 Latin Prose
- 11-222 Latin Poetry
- 11-265 Greek Art and Archaeology
- 11-266 Roman Art and Archaeology
- 11-271 Religions of the Ancient World
- 11-280 Topics in Classical Culture
- 11-320 Topics in Classical Literature
- 11-330 The Ancient World on the Screen
- 11-360 Topics in Ancient Material Culture
- 11-370 Greek Mythology
- 11-372 Roman Mythology
- 11-401 Seminar in Classical Studies
- 11-450 Practicum in Classical Archaeology
- 11-460 Directed Readings in Classical Civilization
- 12-460 Directed Readings in Ancient History
- 13-450 Directed Readings in Greek Literature
- 14-450 Directed Readings in Latin Literature
- 12-262 Greek History I: To the End of the Classical Period
- 12-263 Greek History II: To the End of the Hellenistic Period
- 12-271 Roman History I: To the End of the Republic
- 12-272 Roman History II: To the End of the Empire
- 12-310 Topics in Ancient History
- 13-100 Introduction to Ancient Greek I
- 13-101 Introduction to Ancient Greek II
- 13-200 Intermediate Greek I
- 13-201 Intermediate Greek II
- 14-100 Introductory Latin I
- 14-101 Introductory Latin II
- 14-200 Intermediate Latin I
- 14-201 Intermediate Latin II

**COURSE NUMBER AND TITLE: 11-161: Introduction to Greek Civilization**

<b>Learning Outcomes</b>	<b>Characteristics of a University of Windsor Graduate</b>
<p>This is a sentence completion exercise.</p> <p><u>At the end of this course, the successful student will know and be able to:</u></p>	<p><u>A U of Windsor graduate will have the ability to demonstrate:</u></p>
<p>A.</p> <ul style="list-style-type: none"> <li>• distinguish the main aspects of ancient Greek culture and its importance</li> <li>• recognize the basic geography and history of the ancient Greek world, from around 1400BCE to around 300 BCE</li> <li>• recognize the way ancient Greeks lived and</li> </ul>	<p>A. the acquisition, application and integration of knowledge</p>
<p>B.</p> <ul style="list-style-type: none"> <li>• access and evaluate sources, including primary (ancient) and secondary (modern or online) in terms of trustworthiness and intent</li> </ul>	<p>B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>
<p>C.</p>	<p>C. critical thinking and problem-solving skills</p>
<p>D.</p> <ul style="list-style-type: none"> <li>• express ideas and arguments clearly orally and in writing</li> </ul>	<p>D. literacy and numeracy skills</p>
<p>E.</p> <ul style="list-style-type: none"> <li>• determine the legacy and influence of ancient Greek culture on the modern world, for good or bad</li> </ul>	<p>E. responsible behaviour to self, others and society</p>
<p>F.</p> <ul style="list-style-type: none"> <li>• debate and discuss respectfully</li> <li>• describe cogently and with care</li> </ul>	<p>F. interpersonal and communications skills</p>
<p>G.</p> <ul style="list-style-type: none"> <li>•</li> </ul>	<p>G. teamwork, and personal and group leadership skills</p>
<p>H.</p> <ul style="list-style-type: none"> <li>• recognize the ancient Greek contribution to the visual arts (in painting, sculpture, etc.) and to literature, oratory, and other fields</li> </ul>	<p>H. creativity and aesthetic appreciation</p>
<p>I.</p>	<p>I. the ability and desire for continuous learning</p>

**COURSE NUMBER AND TITLE: 11-162: Introduction to Roman Civilization**

<b>Learning Outcomes</b>	<b>Characteristics of a University of Windsor Graduate</b>
<p>This is a sentence completion exercise.</p> <p><u>At the end of this course, the successful student will know and be able to:</u></p>	<p><u>A U of Windsor graduate will have the ability to demonstrate:</u></p>
<p>A.</p> <ul style="list-style-type: none"> <li>• distinguish the main aspects of Roman culture and its importance</li> <li>• recognize the basic geography and history of the Roman world, from its beginnings around 1000 BCE to around 500 CE</li> <li>• recognize the way Romans lived and prospered</li> </ul>	<p>A. the acquisition, application and integration of knowledge</p>
<p>B.</p> <ul style="list-style-type: none"> <li>• access and evaluate sources, including primary (ancient) and secondary (modern or online) in terms of trustworthiness and intent</li> </ul>	<p>B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>
<p>C.</p>	<p>C. critical thinking and problem-solving skills</p>
<p>D.</p> <ul style="list-style-type: none"> <li>• express ideas and arguments clearly orally and in writing</li> </ul>	<p>D. literacy and numeracy skills</p>
<p>E.</p> <ul style="list-style-type: none"> <li>• determine the legacy and influence of Roman culture on the modern world, for good or bad</li> </ul>	<p>E. responsible behaviour to self, others and society</p>
<p>F.</p> <ul style="list-style-type: none"> <li>• debate and discuss respectfully</li> <li>• describe cogently and with care</li> </ul>	<p>F. interpersonal and communications skills</p>
<p>G.</p> <ul style="list-style-type: none"> <li>•</li> </ul>	<p>G. teamwork, and personal and group leadership skills</p>
<p>H.</p> <ul style="list-style-type: none"> <li>• recognize the Roman contribution to the visual arts (in painting, sculpture, mosaics, etc.) and to literature, oratory, and other fields</li> </ul>	<p>H. creativity and aesthetic appreciation</p>
<p>I.</p>	<p>I. the ability and desire for continuous learning</p>

**COURSE NUMBER AND TITLE: 11-211 Greek Prose**

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>	<b>Characteristics of a University of Windsor Graduate</b>
<u>At the end of this course, the successful student will know and be able to:</u>	<u>A U of Windsor graduate will have the ability to demonstrate:</u>
A. <ul style="list-style-type: none"> <li>• describe and examine a particular genre of Greek prose literature, such as historiography or the novel</li> </ul>	A. the acquisition, application and integration of knowledge
B. <ul style="list-style-type: none"> <li>• evaluate and apply basic interpretive methodologies in their own analyses of particular Greek prose texts</li> </ul>	B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
C. <ul style="list-style-type: none"> <li>• apply the conventions of the genre in general to analysis of particular texts</li> <li>• analyze Greek prose texts at the level of composition or style and at the level of overall structure</li> </ul>	C. critical thinking and problem-solving skills
D.	D. literacy and numeracy skills
E.	E. responsible behaviour to self, others and society
F. <ul style="list-style-type: none"> <li>• argue effectively to present their own interpretations of Greek prose texts in writing and orally</li> </ul>	F. interpersonal and communications skills
G.	G. teamwork, and personal and group leadership skills
H. <ul style="list-style-type: none"> <li>• assess the intellectual and aesthetic aspects of ancient Greek prose literature</li> </ul>	H. creativity and aesthetic appreciation
I.	I. the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 11-212 Greek Poetry**

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>	<b>Characteristics of a University of Windsor Graduate</b>
<u>At the end of this course, the successful student will know and be able to:</u>	<u>A U of Windsor graduate will have the ability to demonstrate:</u>
A. <ul style="list-style-type: none"> <li>• describe and examine a particular genre of Greek poetry, such as tragedy or epic</li> </ul>	A. the acquisition, application and integration of knowledge
B. <ul style="list-style-type: none"> <li>• evaluate and apply basic interpretive methodologies in their own analyses of particular Greek poetic texts</li> </ul>	B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
C. <ul style="list-style-type: none"> <li>• apply the conventions of the genre in general to analysis of particular texts</li> <li>• analyze Greek poetic texts at the level of composition or style and at the level of overall structure</li> </ul>	C. critical thinking and problem-solving skills
D.	D. literacy and numeracy skills
E.	E. responsible behaviour to self, others and society
F. <ul style="list-style-type: none"> <li>• argue effectively to present their own interpretations of Greek poetic texts in writing and orally</li> </ul>	F. interpersonal and communications skills
G.	G. teamwork, and personal and group leadership skills
H. <ul style="list-style-type: none"> <li>• assess the intellectual and aesthetic aspects of ancient Greek poetic literature</li> </ul>	H. creativity and aesthetic appreciation
I.	I. the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 11-221 Latin Prose**

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>	<b>Characteristics of a University of Windsor Graduate</b>
<u>At the end of this course, the successful student will know and be able to:</u>	<u>A U of Windsor graduate will have the ability to demonstrate:</u>
<p>A.</p> <ul style="list-style-type: none"> <li>• describe and examine a particular genre of Latin prose literature, such as historiography or oratory</li> </ul>	<p>B. the acquisition, application and integration of knowledge</p>
<p>B.</p> <ul style="list-style-type: none"> <li>• evaluate and apply basic interpretive methodologies in their own analyses of particular Latin prose texts</li> </ul>	<p>B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>
<p>C.</p> <ul style="list-style-type: none"> <li>• apply the conventions of the genre in general to analysis of particular texts</li> <li>• analyze Latin prose texts at the level of composition or style and at the level of overall structure</li> </ul>	<p>C. critical thinking and problem-solving skills</p>
<p>D.</p>	<p>D. literacy and numeracy skills</p>
<p>E.</p>	<p>E. responsible behaviour to self, others and society</p>
<p>F.</p> <ul style="list-style-type: none"> <li>• argue effectively to present their own interpretations of Latin prose texts in writing and orally</li> </ul>	<p>F. interpersonal and communications skills</p>
<p>G.</p>	<p>G. teamwork, and personal and group leadership skills</p>
<p>H.</p> <ul style="list-style-type: none"> <li>• assess the intellectual and aesthetic aspects of Latin prose literature</li> </ul>	<p>H. creativity and aesthetic appreciation</p>
<p>I.</p>	<p>I. the ability and desire for continuous learning</p>

**COURSE NUMBER AND TITLE: 11-222 Latin Poetry**

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>	<b>Characteristics of a University of Windsor Graduate</b>
<u>At the end of this course, the successful student will know and be able to:</u>	<u>A U of Windsor graduate will have the ability to demonstrate:</u>
A. <ul style="list-style-type: none"> <li>• describe and examine a particular genre of Greek poetry, such as epic or elegy</li> </ul>	C. the acquisition, application and integration of knowledge
B. <ul style="list-style-type: none"> <li>• evaluate and apply basic interpretive methodologies in their own analyses of particular Latin poetic texts</li> </ul>	B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
C. <ul style="list-style-type: none"> <li>• apply the conventions of the genre in general to analysis of particular texts</li> <li>• analyze Latin poetic texts at the level of composition or style and at the level of overall structure</li> </ul>	C. critical thinking and problem-solving skills
D.	D. literacy and numeracy skills
E.	E. responsible behaviour to self, others and society
F. <ul style="list-style-type: none"> <li>• argue effectively to present their own interpretations of Latin poetic texts in writing and orally</li> </ul>	F. interpersonal and communications skills
G.	G. teamwork, and personal and group leadership skills
H. <ul style="list-style-type: none"> <li>• assess the intellectual and aesthetic aspects of Latin poetry</li> </ul>	H. creativity and aesthetic appreciation
I.	I. the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 11-265: Greek Art and Archaeology**

<b>Learning Outcomes</b> This is a sentence completion exercise. <u>At the end of this course, the successful student will know and be able to:</u>	<b>Characteristics of a University of Windsor Graduate</b> <u>A U of Windsor graduate will have the ability to demonstrate:</u>
A. describe the evolution of Greek material culture from circa 3000 to 30 BCE  assign artifacts to their chronological context (both relative and absolute) and to their cultural context  assess the methodology, advantages, and limitations of both archaeological excavations and artifacts	A. the acquisition, application and integration of knowledge
B. extrapolate from paradigmatic artifacts to the identification and interpretation of unknown artifacts (e.g. by analyzing style, iconography, material, technique, function)  access appropriate resources (both online and hard copy) for the identification and interpretation of artifacts	B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
C. analyze and interpret artifacts in the context of their style, material, technique, geographical site, etc.	C. critical thinking and problem-solving skills
D.	D. literacy and numeracy skills
E. recognize and name differences in aesthetic priorities between the ancient Greeks and ourselves  recognize that the methodology of our interpretation of the ancient Greeks from their excavated garbage (the stuff and nature of most digs) will likewise be applied to us by posterity on the basis of what we discard	E. responsible behaviour to self, others and society
F. argue a position clearly and cogently	F. interpersonal and communications skills
G.	G. teamwork, and personal and group leadership skills
H. compare and contrast the aesthetic priorities of one Greek period or artifact type with those of another	H. creativity and aesthetic appreciation
I.	I. the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 11-266: Roman Art and Archaeology**

<b>Learning Outcomes</b> This is a sentence completion exercise. <u>At the end of this course, the successful student will know and be able to:</u>	<b>Characteristics of a University of Windsor Graduate</b> <u>A U of Windsor graduate will have the ability to demonstrate:</u>
<p>A. describe the evolution of Roman material culture from circa 1000 BCE to 400 CE</p> <p>assign artifacts to their chronological context (both relative and absolute) and to their cultural context</p> <p>discuss the methodology, advantages, and limitations of both archaeological excavations and artifacts</p>	the acquisition, application and integration of knowledge
<p>B. extrapolate from paradigmatic artifacts to the identification and interpretation of unknown artifacts (e.g. by analyzing style, iconography, material, technique, function)</p> <p>access appropriate resources (both online and hard copy) for the identification and interpretation of artifacts</p>	B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
<p>C. analyze and interpret artifacts in the context of their style, material, technique, geographical site, etc.</p>	C. critical thinking and problem-solving skills
<p>D.</p>	D. literacy and numeracy skills
<p>E. recognize and name differences in aesthetic priorities between the ancient Romans and ourselves</p> <p>recognize that the methodology of our interpretation of the ancient Romans from their excavated garbage (the stuff and nature of most digs) will likewise be applied to us by posterity on the basis of what we discard</p>	E. responsible behaviour to self, others and society
<p>F. argue a position clearly and cogently</p>	F. interpersonal and communications skills
<p>G.</p>	G. teamwork, and personal and group leadership skills
<p>H. compare and contrast the aesthetic priorities of one Roman period or artifact type with those of another</p>	H. creativity and aesthetic appreciation
<p>I.</p>	I. the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 11-271 Religions of the Ancient World**

<b>Learning Outcomes</b> <i>This is a sentence completion exercise.</i>	<b>Characteristics of a University of Windsor Graduate</b>
<u>At the end of this course, the successful student will know and be able to:</u>	<u>A U of Windsor graduate will have the ability to demonstrate:</u>
A. <ul style="list-style-type: none"> <li>describe the nature of ancient religions, including explaining issue of practice and belief, and making comparisons between different religious traditions</li> </ul>	D. the acquisition, application and integration of knowledge
B. <ul style="list-style-type: none"> <li>examine and appraise ancient texts and modern scholarship on religion</li> </ul>	B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
C. <ul style="list-style-type: none"> <li>critically analyze the various religious arguments found in sources and grasp the complexity of religious beliefs and practices</li> </ul>	C. critical thinking and problem-solving skills
D. <ul style="list-style-type: none"> <li>analyze complex issues found in ancient sources</li> <li>evaluate modern scholarship</li> </ul>	D. literacy and numeracy skills
E. <ul style="list-style-type: none"> <li>critically evaluate religious beliefs and practices</li> </ul>	E. responsible behaviour to self, others and society
F.	F. interpersonal and communications skills
G.	G. teamwork, and personal and group leadership skills
H. <ul style="list-style-type: none"> <li>describe the iconographical traditions of various religions</li> </ul>	H. creativity and aesthetic appreciation
I.	I. the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 11-280: Topics in Classical Culture**

<b>Learning Outcomes</b>	<b>Characteristics of a University of Windsor Graduate</b>
This is a sentence completion exercise.	
<u>At the end of this course, the successful student will know and be able to:</u>	<u>A U of Windsor graduate will have the ability to demonstrate:</u>
A. Assess a certain aspect of the Greco-Roman world (such as athletics, magic, or leisure)	the acquisition, application and integration of knowledge
B. parse, interpret, and comment upon selections from ancient sources or modern scholarship relevant to aspects of the Greco-Roman world access and assess critically relevant material online	B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
C. evaluate sources, both primary (ancient) and secondary (modern), in terms of trustworthiness and intent	C. critical thinking and problem-solving skills
D. express ideas and arguments clearly orally and in writing	D. literacy and numeracy skills
E.	E. responsible behaviour to self, others and society
F. debate and discuss respectfully describe cogently and with care	F. interpersonal and communications skills
G.	G. teamwork, and personal and group leadership skills
H.	H. creativity and aesthetic appreciation
I. appraise the importance of the Greco-Roman legacy for our own modern world	I. the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 11-320 Topics in Classical Literature**

<b>Learning Outcomes</b>	<b>Characteristics of a University of Windsor Graduate</b>
<p><i>This is a sentence completion exercise.</i></p> <p><u>At the end of this course, the successful student will know and be able to:</u></p>	<p><u>A U of Windsor graduate will have the ability to demonstrate:</u></p>
<p>A.</p> <ul style="list-style-type: none"> <li>• describe and analyze a particular theme or topic in Greek or Roman literature</li> </ul>	<p>E. the acquisition, application and integration of knowledge</p>
<p>B.</p> <ul style="list-style-type: none"> <li>• independently appraise material through framing their own research projects</li> </ul>	<p>B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>
<p>C.</p> <ul style="list-style-type: none"> <li>• assess intellectual and aesthetic aspects of works of Greek or Roman literature</li> </ul>	<p>C. critical thinking and problem-solving skills</p>
<p>D.</p> <ul style="list-style-type: none"> <li>• articulate their thought in well-organized and well-justified writing</li> </ul>	<p>D. literacy and numeracy skills</p>
<p>E.</p> <ul style="list-style-type: none"> <li>•</li> </ul>	<p>E. responsible behaviour to self, others and society</p>
<p>F.</p> <ul style="list-style-type: none"> <li>•</li> </ul>	<p>F. interpersonal and communications skills</p>
<p>G.</p> <ul style="list-style-type: none"> <li>• debate effectively</li> </ul>	<p>G. teamwork, and personal and group leadership skills</p>
<p>H.</p> <ul style="list-style-type: none"> <li>• connect intellectual and aesthetic appreciation of works of Greek or Roman literature</li> </ul>	<p>H. creativity and aesthetic appreciation</p>
<p>I.</p> <ul style="list-style-type: none"> <li>•</li> </ul>	<p>I. the ability and desire for continuous learning</p>

**COURSE NUMBER AND TITLE: 11-330: The Ancient World on the Screen**

<b>Learning Outcomes</b> This is a sentence completion exercise. <u>At the end of this course, the successful student will know and be able to:</u>	<b>Characteristics of a University of Windsor Graduate</b> <u>A U of Windsor graduate will have the ability to demonstrate:</u>
A. <ul style="list-style-type: none"> <li>• evaluate how movies and television shows as popular and mass entertainment have had a large impact on general conceptions of ancient Greeks and/or Romans</li> <li>• discuss how fact and fiction are used in historical movies and television shows (including issues dealing with accuracy and dramatic license)</li> </ul>	A. the acquisition, application and integration of knowledge
B. <ul style="list-style-type: none"> <li>• find and evaluate ancient sources to create a treatment for a new movie based on actual events from Roman history</li> <li>• access and assess critically relevant material online</li> </ul>	B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
C. <ul style="list-style-type: none"> <li>• recognize how movies and television shows are all at once in various ways entertaining, money-making, instructional, moralistic, and self-reflective</li> <li>• observe and analyze on-screen conventions</li> <li>• notice the sorts of errors found in movies and television shows about the ancient world</li> <li>• assess how to convey historical information in a popular medium, such as modern movies</li> </ul>	C. critical thinking and problem-solving skills
D.	D. literacy and numeracy skills
E. <ul style="list-style-type: none"> <li>• appraise a new way of viewing modern cultural products</li> </ul>	E. responsible behaviour to self, others and society
F. <ul style="list-style-type: none"> <li>• debate and discuss respectfully</li> <li>• describe cogently and with care</li> <li>• act as a role model by being attentive and involved</li> </ul>	F. interpersonal and communications skills
G.	G. teamwork, and personal and group leadership skills
H. <ul style="list-style-type: none"> <li>• assess cinema as an important form of artistic expression as well as part of the reception of classical culture</li> </ul>	H. creativity and aesthetic appreciation
I. <ul style="list-style-type: none"> <li>• appreciate popular, fictional portrayals in light of the actual history behind them</li> </ul>	I. the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 11-360: Topics in Ancient Material Culture**

<b>Learning Outcomes</b>	<b>Characteristics of a University of Windsor Graduate</b>
This is a sentence completion exercise.	
<u>At the end of this course, the successful student will know and be able to:</u>	<u>A U of Windsor graduate will have the ability to demonstrate:</u>
A. assess conflicting evidence and the scholarly priorities and controversies in a particular field of archaeology	A. the acquisition, application and integration of knowledge
B. locate current scholarship in the field, both online (e.g. JSTOR) and in the library	B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
C.	C. critical thinking and problem-solving skills
D.	D. literacy and numeracy skills
E. assess how a society's material culture gives insight into its ethos and priorities	E. responsible behaviour to self, others and society
F. present research results orally and in writing	F. interpersonal and communications skills
G. appraise the interpretive methodologies and consequent interpretations that arise from material culture	G. teamwork, and personal and group leadership skills
H.	H. creativity and aesthetic appreciation
I.	I. the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 11-370 Greek Mythology**

<b>Learning Outcomes</b>	<b>Characteristics of a University of Windsor Graduate</b>
<p><i>This is a sentence completion exercise.</i></p> <p><u>At the end of this course, the successful student will know and be able to:</u></p>	<p><u>A U of Windsor graduate will have the ability to demonstrate:</u></p>
<p>A.</p> <ul style="list-style-type: none"> <li>• recognize and analyze key figures and stories from Greek mythology as they appear in literature and visual art</li> </ul>	<p>A. the acquisition, application and integration of knowledge</p>
<p>B.</p> <ul style="list-style-type: none"> <li>• assess and apply interpretive methodologies (such as structuralist analysis or comparative mythology) in their own analyses of particular myths</li> </ul>	<p>B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>
<p>C.</p> <ul style="list-style-type: none"> <li>• integrate knowledge of the socio-historical contexts of particular works of Greek narrative and visual arts into analyses of the mythic content of those works</li> </ul>	<p>C. critical thinking and problem-solving skills</p>
<p>D.</p> <ul style="list-style-type: none"> <li>•</li> </ul>	<p>D. literacy and numeracy skills</p>
<p>E.</p> <ul style="list-style-type: none"> <li>•</li> </ul>	<p>E. responsible behaviour to self, others and society</p>
<p>F.</p> <ul style="list-style-type: none"> <li>• argue effectively to present their independent interpretations of particular myths or mythic themes</li> </ul>	<p>F. interpersonal and communications skills</p>
<p>G.</p> <ul style="list-style-type: none"> <li>•</li> </ul>	<p>G. teamwork, and personal and group leadership skills</p>
<p>H.</p> <ul style="list-style-type: none"> <li>• assess the intellectual and aesthetic aspects of Greek myths</li> </ul>	<p>H. creativity and aesthetic appreciation</p>
<p>I.</p> <ul style="list-style-type: none"> <li>•</li> </ul>	<p>I. the ability and desire for continuous learning</p>

**COURSE NUMBER AND TITLE: 11-372 Roman Mythology**

<b>Learning Outcomes</b>	<b>Characteristics of a University of Windsor Graduate</b>
<p><i>This is a sentence completion exercise.</i></p> <p><u>At the end of this course, the successful student will know and be able to:</u></p>	<p>A U of Windsor graduate will have the ability to demonstrate:</p>
<p>A.</p> <ul style="list-style-type: none"> <li>• recognize and analyze key figures and stories from Roman mythology as they appear in literature, architecture and visual art</li> </ul>	<p>A. the acquisition, application and integration of knowledge</p>
<p>B.</p> <ul style="list-style-type: none"> <li>• assess and apply interpretive methodologies (such as structuralist analysis or comparative mythology) in their own analyses of particular myths</li> </ul>	<p>B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>
<p>C.</p> <ul style="list-style-type: none"> <li>• integrate knowledge of the socio-historical contexts of particular works of Roman narrative and visual arts into analyses of the mythic content of those works</li> </ul>	<p>C. critical thinking and problem-solving skills</p>
<p>D.</p> <ul style="list-style-type: none"> <li>•</li> </ul>	<p>D. literacy and numeracy skills</p>
<p>E.</p> <ul style="list-style-type: none"> <li>•</li> </ul>	<p>E. responsible behaviour to self, others and society</p>
<p>F.</p> <ul style="list-style-type: none"> <li>• argue effectively to present their independent interpretations of particular myths or mythic themes</li> </ul>	<p>F. interpersonal and communications skills</p>
<p>G.</p> <ul style="list-style-type: none"> <li>•</li> </ul>	<p>G. teamwork, and personal and group leadership skills</p>
<p>H.</p> <ul style="list-style-type: none"> <li>• assess the intellectual and aesthetic aspects of Roman myths</li> </ul>	<p>H. creativity and aesthetic appreciation</p>
<p>I.</p> <ul style="list-style-type: none"> <li>•</li> </ul>	<p>I. the ability and desire for continuous learning</p>

**COURSE NUMBER AND TITLE: 11-401: Seminar in Classical Studies**

<b>Learning Outcomes</b>	<b>Characteristics of a University of Windsor Graduate</b>
<p>This is a sentence completion exercise.</p> <p><u>At the end of this course, the successful student will know and be able to:</u></p>	<p><u>A U of Windsor graduate will have the ability to demonstrate:</u></p>
<p>A. appraise in-depth a tightly focused topic in Greek or Roman studies on the basis of both its primary (i.e. ancient) and its secondary (i.e. modern scholarship) sources</p>	<p>A. the acquisition, application and integration of knowledge</p>
<p>B. locate primary and secondary sources appropriate to the topic both online (e.g. JSTOR) and in the library</p>	<p>B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>
<p>C. integrate and interpret primary and secondary sources sift the relative merits of information from different sources</p>	<p>C. critical thinking and problem-solving skills</p>
<p>D.</p>	<p>D. literacy and numeracy skills</p>
<p>E. integrate discoveries about the Greco-Roman world and place them in comparison with our own world</p>	<p>E. responsible behaviour to self, others and society</p>
<p>F. interpret and present the results of in-depth research lucidly</p>	<p>F. interpersonal and communications skills</p>
<p>G.</p>	<p>G. teamwork, and personal and group leadership skills</p>
<p>H. experience first-hand literary or artistic masterpieces of the ancient world</p>	<p>H. creativity and aesthetic appreciation</p>
<p>I.</p>	<p>I. the ability and desire for continuous learning</p>

**COURSE NUMBER AND TITLE: 11-450: Practicum in Classical Archaeology**

<b>Learning Outcomes</b> This is a sentence completion exercise.  <u>At the end of this course, the successful student will know and be able to:</u>	<b>Characteristics of a University of Windsor Graduate</b>  <u>A U of Windsor graduate will have the ability to demonstrate:</u>
<p>A. excavate an archaeological site (i.e. digging techniques with trowel and pickaxe, taking levels and coordinates for finds, generating and maintaining records in a trench notebook)</p> <p>undertake some basic conservation and data-gathering techniques (e.g. pottery washing and sorting by ware)</p> <p>critique from personal experience the presentation and interpretation of a wide variety of archaeological sites and artifacts, acknowledging opportunities and limitations thereto in a Mediterranean country like Greece</p>	the acquisition, application and integration of knowledge
<p>B. gather detailed and accurate information for report about one archaeological monument or site that may not be well published or published only in a foreign language</p> <p>gather, synthesize, and apply information from other archaeological sites and museums</p>	B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
<p>C. think strategically about how to get the most and best results from an excavation with the minimum investment of time, money, and human effort, all of which are in limited supply</p>	C. critical thinking and problem-solving skills
<p>D.</p>	D. literacy and numeracy skills
<p>E. contribute to our knowledge of the past through front-line acts of discovery, conservation, and interpretation</p>	E. responsible behaviour to self, others and society
<p>F. explain the significance of an archaeological site effectively and reliably to others, guide them around it, and answer any questions about it</p>	F. interpersonal and communications skills
<p>G.</p>	G. teamwork, and personal and group leadership skills
<p>H. describe seminal artifacts and monuments of Western culture (e.g. Parthenon and its sculptures) through first-hand contact with them</p>	H. creativity and aesthetic appreciation
<p>I.</p>	I. the ability and desire for continuous learning

**COURSE NUMBER AND TITLE:****11-460: Directed Readings in Classical Civilization;****12-460: Directed Reading in Ancient History;****13-450: Directed Readings in Greek Literature****14-450: Directed Readings in Latin Literature**

Learning Outcomes	Characteristics of a University of Windsor Graduate
<p>This is a sentence completion exercise.</p> <p><u>At the end of this course, the successful student will know and be able to:</u></p>	<p><u>A U of Windsor graduate will have the ability to demonstrate:</u></p>
<p>A. appraise a particular aspect of the Greco-Roman world (e.g. culture, history, or literature)</p>	<p>A. the acquisition, application and integration of knowledge</p>
<p>B. independently locate appropriate, and high-level primary (i.e. ancient) or secondary (i.e. modern scholarship) sources that are applicable to the chosen topic from a variety of online and hard-copy resources</p>	<p>B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>
<p>C.</p>	<p>C. critical thinking and problem-solving skills</p>
<p>D.</p>	<p>D. literacy and numeracy skills</p>
<p>E. contribute to scholarship in the field with original works of scholarship that may be suitable for presentation at a conference</p>	<p>E. responsible behaviour to self, others and society</p>
<p>F. interpret and provide a lucid exposition of the material examined in the course</p>	<p>F. interpersonal and communications skills</p>
<p>G. participate in a mutually-beneficial mentor-student relationship</p>	<p>G. teamwork, and personal and group leadership skills</p>
<p>H.</p>	<p>H. creativity and aesthetic appreciation</p>
<p>I. articulate a variety of the methods employed in professional scholarship</p>	<p>I. the ability and desire for continuous learning</p>

**COURSE NUMBER AND TITLE: 12-262: Greek History I: To the End of the Classical Period**

<b>Learning Outcomes</b>	<b>Characteristics of a University of Windsor Graduate</b>
<p>This is a sentence completion exercise.</p> <p><u>At the end of this course, the successful student will know and be able to:</u></p>	<p><u>A U of Windsor graduate will have the ability to demonstrate:</u></p>
<p>A. discuss the formation of citizen-based and autonomous city-states (in particular Athens and Sparta) out of centuries of royal or oligarchic rule, their great potential in the Classical period, and ultimately their susceptibility to external domination assess advantages and limitations of historical witnesses for determining what really happened, and thereby learn how to sift the efficacy of different sources</p>	<p>the acquisition, application and integration of knowledge</p>
<p>B. parse the political, social, and cultural implications posed, and contexts assumed, by primary texts (e.g. Greek inscriptions in translation)</p>	<p>B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>
<p>C. explain the significance of specific primary texts from ancient Greece</p>	<p>C. critical thinking and problem-solving skills</p>
<p>D. apply the often sophisticated evidence of secondary scholarship (e.g. JSTOR articles)</p>	<p>D. literacy and numeracy skills</p>
<p>E. appraise how Western society values a number of norms and ideals first practiced by the ancient Greeks, albeit often in a form different from what we would immediately recognize (e.g. demokratia versus democracy)</p>	<p>E. responsible behaviour to self, others and society</p>
<p>F. argue the pros and cons of pivotal moments in Greek history argue a position clearly and cogently</p>	<p>F. interpersonal and communications skills</p>
<p>G.</p>	<p>G. teamwork, and personal and group leadership skills</p>
<p>H. simulate crucial historical episodes appraise the cultural and artistic manifestations of Greek civilization, and whence they came</p>	<p>H. creativity and aesthetic appreciation</p>
<p>I.</p>	<p>I. the ability and desire for continuous learning</p>

**COURSE NUMBER AND TITLE: 12-263: Greek History II: To the End of the Hellenistic Period**

<b>Learning Outcomes</b> This is a sentence completion exercise.	<b>Characteristics of a University of Windsor Graduate</b>
At the end of this course, the successful student will know and be able to:	A U of Windsor graduate will have the ability to demonstrate:
A. discuss the accomplishments of Alexander the Great and his legacy, a fusion of Greek and Asian, for the next three hundred years  assess advantages and limitations of historical witnesses for determining what really happened, and assess the efficacy of different sources	A. the acquisition, application and integration of knowledge
B. parse the political, social, and cultural implications posed, and contexts assumed, by primary texts (e.g. Greek inscriptions in translation)	B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
C. explain the significance of specific primary texts from ancient Greece	C. critical thinking and problem-solving skills
D. apply the often sophisticated evidence of secondary scholarship (e.g. JSTOR articles)	D. literacy and numeracy skills
E. appraise how many of our supposedly “modern” norms (e.g. multiculturalism, colonialism, capitalism, arms races, celebrity culture, art for the sake of art) first manifested themselves, and first merited attention, in the Hellenistic period	E. responsible behaviour to self, others and society
F. argue the pros and cons of pivotal moments in Hellenistic history argue a position clearly and cogently	F. interpersonal and communications skills
G.	G. teamwork, and personal and group leadership skills
H. simulate crucial historical episodes  appraise the cultural and artistic manifestations of Hellenistic civilization, and whence they came	H. creativity and aesthetic appreciation
I.	I. the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 12-271: Roman History I: To the End of the Republic**

Learning Outcomes	Characteristics of a University of Windsor Graduate
<p>This is a sentence completion exercise.</p> <p><u>At the end of this course, the successful student will know and be able to:</u></p>	<p><u>A U of Windsor graduate will have the ability to demonstrate:</u></p>
<p>A.</p> <ul style="list-style-type: none"> <li>• discuss the mythic as well as historic origins of the Romans and how, over the period of a few centuries, the Romans managed to unite all of the Mediterranean and most of western Europe into an empire</li> <li>• investigate the lives of many of the most important individuals of the Roman period</li> </ul>	<p>A. the acquisition, application and integration of knowledge</p>
<p>B.</p> <ul style="list-style-type: none"> <li>• analyze and comment upon primary ancient sources (such as Livy) (also relevant to C)</li> </ul>	<p>B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>
<p>C.</p> <ul style="list-style-type: none"> <li>• assess problems and challenges in the evidence (whether literary or archaeological) for the period</li> </ul>	<p>C. critical thinking and problem-solving skills</p>
<p>D.</p>	<p>D. literacy and numeracy skills</p>
<p>E.</p> <ul style="list-style-type: none"> <li>• recognize and critically contemplate moral issues brought up in ancient historians</li> </ul>	<p>E. responsible behaviour to self, others and society</p>
<p>F.</p> <ul style="list-style-type: none"> <li>• debate and discuss respectfully</li> <li>• describe cogently and with care</li> <li>• act as a role model by being attentive and involved</li> </ul>	<p>F. interpersonal and communications skills</p>
<p>G.</p> <ul style="list-style-type: none"> <li>•</li> </ul>	<p>G. teamwork, and personal and group leadership skills</p>
<p>H.</p> <ul style="list-style-type: none"> <li>• appraise the accomplishments of the past, whether literary, artistic, technological, etc.</li> </ul>	<p>H. creativity and aesthetic appreciation</p>
<p>I.</p>	<p>I. the ability and desire for continuous learning</p>

**COURSE NUMBER AND TITLE: 12-272: Roman History II: To the End of the Empire**

<b>Learning Outcomes</b> This is a sentence completion exercise.  At the end of this course, the successful student will know and be able to:	<b>Characteristics of a University of Windsor Graduate</b>  A U of Windsor graduate will have the ability to demonstrate:
<p>A.</p> <ul style="list-style-type: none"> <li>discuss the how the largest and most multi-cultural of all ancient empires was developed, flourished, and finally fell</li> <li>investigate the personalities and policies of all of the main Roman emperors, as well as the major events and wars in the first five centuries A.D.</li> <li>explore the transition from paganism to Christianity</li> </ul>	<p>A. the acquisition, application and integration of knowledge</p>
<p>B.</p> <ul style="list-style-type: none"> <li>gather and critically analyze all extant evidence for a specific individual from the period of the Roman empire</li> </ul>	<p>B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>
<p>C.</p> <ul style="list-style-type: none"> <li>analyze critically ancient sources for the period (such as Suetonius and Tacitus)</li> <li>assess problems and challenges in the evidence (whether literary or archaeological) for the period</li> </ul>	<p>C. critical thinking and problem-solving skills</p>
<p>D.</p> <ul style="list-style-type: none"> <li></li> </ul>	<p>D. literacy and numeracy skills</p>
<p>E.</p> <ul style="list-style-type: none"> <li>recognize and critically contemplate moral issues brought up in ancient historians</li> </ul>	<p>E. responsible behaviour to self, others and society</p>
<p>F.</p> <ul style="list-style-type: none"> <li>debate and discuss respectfully</li> <li>describe cogently and with care</li> <li>act as a role model by being attentive and involved</li> </ul>	<p>F. interpersonal and communications skills</p>
<p>G.</p> <ul style="list-style-type: none"> <li></li> </ul>	<p>G. teamwork, and personal and group leadership skills</p>
<p>H.</p> <ul style="list-style-type: none"> <li>assess the literature, art and architecture created during the period of the Roman Empire</li> </ul>	<p>H. creativity and aesthetic appreciation</p>
<p>I.</p> <ul style="list-style-type: none"> <li>grapple with ancient evidence, piecing together what can be known, and describing it cogently</li> </ul>	<p>I. the ability and desire for continuous learning</p>

**COURSE NUMBER AND TITLE: 12-310: Topics in Ancient History**

<b>Learning Outcomes</b>	<b>Characteristics of a University of Windsor Graduate</b>
This is a sentence completion exercise.	
<u>At the end of this course, the successful student will know and be able to:</u>	<u>A U of Windsor graduate will have the ability to demonstrate:</u>
A. • describe and analyze a certain aspect of Greco-Roman history	A. the acquisition, application and integration of knowledge
B. • locate appropriate primary (ancient) or secondary (modern) sources relevant to the topic, using library books, online resources, as well as material obtained through interlibrary loan	B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
C. • evaluate sources, both primary (ancient) and secondary (modern), in terms of trustworthiness and intent	C. critical thinking and problem-solving skills
D. • express ideas and arguments clearly orally and in writing, including reference to the content of ancient sources and modern scholarship	D. literacy and numeracy skills
E.	E. responsible behaviour to self, others and society
F. • debate and discuss respectfully • describe cogently and with care • act as a role model by being attentive and involved	F. interpersonal and communications skills
G.	G. teamwork, and personal and group leadership skills
H. • assess the accomplishments of the past, whether literary, artistic, technological, etc.	H. creativity and aesthetic appreciation
I. • appraise the task of the ancient historian in seeking out and collating information, analyzing it, and discuss it	I. the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 13-100 Introduction to Ancient Greek I**

<b>Learning Outcomes</b> This is a sentence completion exercise.  <u>At the end of this course, the successful student will know and be able to:</u>	<b>Characteristics of a University of Windsor Graduate</b>  <u>A U of Windsor graduate will have the ability to demonstrate:</u>
<p>A.</p> <ul style="list-style-type: none"> <li>• apply knowledge of ancient Greek vocabulary and grammar, such as first, second and third-declension nouns and the indicative mood of thematic verbs</li> <li>• apply English grammar more proficiently and learn the roots and meanings of numerous English words which derive from Greek</li> </ul>	<p>A. the acquisition, application and integration of knowledge</p>
<p>B.</p> <ul style="list-style-type: none"> <li>• recognize how to use lexicons and grammars to help with issues of definition and syntax</li> </ul>	<p>B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>
<p>C.</p> <ul style="list-style-type: none"> <li>• parse Greek words in terms of part of speech and further categories</li> <li>• translate Greek into English</li> <li>• recognize the subtleties of meaning and use of English words derived from Greek based on their etymology</li> </ul>	<p>C. critical thinking and problem-solving skills</p>
<p>D.</p> <ul style="list-style-type: none"> <li>• read simple Greek sentences</li> </ul>	<p>D. literacy and numeracy skills</p>
<p>E.</p>	<p>E. responsible behaviour to self, others and society</p>
<p>F.</p> <ul style="list-style-type: none"> <li>• act as a role model by being attentive and involved</li> </ul>	<p>F. interpersonal and communications skills</p>
<p>G.</p>	<p>G. teamwork, and personal and group leadership skills</p>
<p>H.</p> <ul style="list-style-type: none"> <li>• assess the linguistic and literary accomplishments of ancient Greeks</li> </ul>	<p>H. creativity and aesthetic appreciation</p>
<p>I.</p>	<p>I. the ability and desire for continuous learning</p>

**COURSE NUMBER AND TITLE: 13-101 Introduction to Ancient Greek II**

<b>Learning Outcomes</b> This is a sentence completion exercise.  <u>At the end of this course, the successful student will know and be able to:</u>	<b>Characteristics of a University of Windsor Graduate</b>  <u>A U of Windsor graduate will have the ability to demonstrate:</u>
A. • apply knowledge of ancient Greek vocabulary and grammar, such as the comparison of adjectives and all the voices of the participle • apply English grammar more proficiently and learn the roots and meanings of numerous English words which derive from Greek	A. the acquisition, application and integration of knowledge
B. • recognize how to use lexicons and grammars to help with issues of definition and syntax	B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
C. • parse Greek words in terms of part of speech and further categories • translate Greek into English • recognize the subtleties of meaning and use of English words derived from Greek based on their etymology	C. critical thinking and problem-solving skills
D. • read Greek sentences	D. literacy and numeracy skills
E.	E. responsible behaviour to self, others and society
F. • act as a role model by being attentive and involved	F. interpersonal and communications skills
G.	G. teamwork, and personal and group leadership skills
H. • assess the linguistic and literary accomplishments of ancient Greeks	H. creativity and aesthetic appreciation
I.	I. the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 13-200 Intermediate Greek I**

<b>Learning Outcomes</b> This is a sentence completion exercise.  <u>At the end of this course, the successful student will know and be able to:</u>	<b>Characteristics of a University of Windsor Graduate</b>  <u>A U of Windsor graduate will have the ability to demonstrate:</u>
A. apply vocabulary and grammar such as the subjunctive mood and conditional clauses translate involved passages from Greek into English, and vice versa	A. the acquisition, application and integration of knowledge
B. parse sophisticated verb forms (any given Greek verb has about 250 different forms) by resorting to dictionaries or online aids	B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
C. parse and translate challenging grammatical forms from first principles, i.e. without outside aids  decide which of the various possible meanings for any grammatical form is most likely the correct one in the given context  think logically and analytically about how best to translate an unseen passage, i.e. by progressing from what one knows to plausible (typically context-sensitive) hypotheses about what one does not (yet) know	C. critical thinking and problem-solving skills
D.	D. literacy and numeracy skills
E.	E. responsible behaviour to self, others and society
F. express themselves in ancient Greek	F. interpersonal and communications skills
G. work together in small groups	G. teamwork, and personal and group leadership skills
H. Articulate insights into some of the classic works of Greek poets and prose writers	H. creativity and aesthetic appreciation
I.	I. the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 13-201: Intermediate Greek II**

<b>Learning Outcomes</b>	<b>Characteristics of a University of Windsor Graduate</b>
<p>This is a sentence completion exercise.</p> <p><u>At the end of this course, the successful student will know and be able to:</u></p>	<p><u>A U of Windsor graduate will have the ability to demonstrate:</u></p>
<p>A. Apply vocabulary and grammar such as the perfect system, optative mood, and other sophisticated acquisitions translate involved passages from Greek into English, and vice versa</p>	<p>A.the acquisition, application and integration of knowledge</p>
<p>B. parse sophisticated verb forms (any given Greek verb has about 250 different forms) by resorting to dictionaries or online aids</p>	<p>B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>
<p>C. parse and translate challenging grammatical forms from first principles, i.e. without outside aids  decide which of the various possible meanings for any grammatical form is most likely the correct one in the given context  think logically and analytically about how best to translate an unseen passage, i.e. by progressing from what one knows to plausible (typically context-sensitive) hypotheses about what one does not (yet) know</p>	<p>C. critical thinking and problem-solving skills</p>
<p>D.</p>	<p>D. literacy and numeracy skills</p>
<p>E.</p>	<p>E. responsible behaviour to self, others and society</p>
<p>F. express themselves in ancient Greek, and ancient Greek in English</p>	<p>F. interpersonal and communications skills</p>
<p>G. work together in small groups</p>	<p>G. teamwork, and personal and group leadership skills</p>
<p>H. articulate insights into some of the classic works of Greek poets and prose writers</p>	<p>H. creativity and aesthetic appreciation</p>
<p>I.</p>	<p>I. the ability and desire for continuous learning</p>

**COURSE NUMBER AND TITLE: 14-100 Introduction to Latin I**

<b>Learning Outcomes</b> This is a sentence completion exercise.  <u>At the end of this course, the successful student will know and be able to:</u>	<b>Characteristics of a University of Windsor Graduate</b>  <u>A U of Windsor graduate will have the ability to demonstrate:</u>
A. <ul style="list-style-type: none"> <li>• apply knowledge of Latin vocabulary and grammar, such as first and second-declension nouns and the indicative mood of verbs</li> <li>• apply English grammar more proficiently and learn the roots and meanings of numerous English words which derive from Latin</li> </ul>	A. the acquisition, application and integration of knowledge
B. <ul style="list-style-type: none"> <li>• recognize how to use lexicons and grammars to help with issues of definition and syntax</li> </ul>	B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
C. <ul style="list-style-type: none"> <li>• parse Latin words in terms of part of speech and further categories</li> <li>• translate Latin into English</li> <li>• recognize the subtleties of meaning and use of English words derived from Latin based on their etymology</li> </ul>	C. critical thinking and problem-solving skills
D. <ul style="list-style-type: none"> <li>• read simple Latin sentences</li> </ul>	D. literacy and numeracy skills
E.	E. responsible behaviour to self, others and society
F. <ul style="list-style-type: none"> <li>• act as a role model by being attentive and involved</li> </ul>	F. interpersonal and communications skills
G.	G. teamwork, and personal and group leadership skills
H. <ul style="list-style-type: none"> <li>• assess the linguistic and literary accomplishments of ancient Romans</li> </ul>	H. creativity and aesthetic appreciation
I.	I. the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 14-101: Introduction to Latin II**

<b>Learning Outcomes</b> This is a sentence completion exercise.	<b>Characteristics of a University of Windsor Graduate</b>
<u>At the end of this course, the successful student will know and be able to:</u>	<u>A U of Windsor graduate will have the ability to demonstrate:</u>
A. <ul style="list-style-type: none"> <li>• apply knowledge of Latin vocabulary and grammar</li> <li>• apply English grammar more proficiently and learn the roots and meanings of numerous English words which derive from Latin</li> </ul>	A. the acquisition, application and integration of knowledge
B. <ul style="list-style-type: none"> <li>• recognize how to use lexicons and grammars to help with issues of definition and syntax</li> </ul>	B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)
C. <ul style="list-style-type: none"> <li>• parse Latin words in terms of part of speech and further categories</li> <li>• translate Latin into English</li> <li>• recognize the subtleties of meaning and use of English words derived from Latin based on their etymology</li> </ul>	C. critical thinking and problem-solving skills
D. <ul style="list-style-type: none"> <li>• read complex Latin sentences</li> </ul>	D. literacy and numeracy skills
E.	E. responsible behaviour to self, others and society
F. <ul style="list-style-type: none"> <li>• act as a role model by being attentive and involved</li> </ul>	F. interpersonal and communications skills
G. <ul style="list-style-type: none"> <li>•</li> </ul>	G. teamwork, and personal and group leadership skills
H. <ul style="list-style-type: none"> <li>• assess the linguistic and literary accomplishments of ancient Romans</li> <li>• appreciate a number of stories of Roman mythology</li> </ul>	H. creativity and aesthetic appreciation
I.	I. the ability and desire for continuous learning

**COURSE NUMBER AND TITLE: 14-200: Intermediate Latin I**

<b>Learning Outcomes</b> This is a sentence completion exercise.  <u>At the end of this course, the successful student will know and be able to:</u>	<b>Characteristics of a University of Windsor Graduate</b>  <u>A U of Windsor graduate will have the ability to demonstrate:</u>
<p>A.</p> <ul style="list-style-type: none"> <li>• Apply knowledge of Latin vocabulary and grammar, including the use of participles, deponent verbs, the subjunctive mood, and indirect statements</li> <li>• apply English grammar proficiently and learn the roots and meanings of numerous English words which derive from Latin</li> <li>• comprehend the sort of Latin used in various modern fields (such as in biology, pharmacology, law, religion, and scholarship)</li> </ul>	<p>A. the acquisition, application and integration of knowledge</p>
<p>B.</p> <ul style="list-style-type: none"> <li>• recognize how to use lexicons and grammars to help with issues of definition and syntax</li> </ul>	<p>B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>
<p>C.</p> <ul style="list-style-type: none"> <li>• parse increasingly complicated Latin word formations</li> <li>• translate more complicated Latin into English, including various sorts of sentences and passages</li> <li>• decide which of the various possible meaning for any grammatical form is most likely the correct one in the given context</li> <li>• recognize the subtleties of meaning and use of English words derived from Latin based on their etymology</li> </ul>	<p>C. critical thinking and problem-solving skills</p>
<p>D.</p> <ul style="list-style-type: none"> <li>• read complex Latin sentences, without outside aids, paying attention to minor details</li> </ul>	<p>D. literacy and numeracy skills</p>
<p>E.</p>	<p>E. responsible behaviour to self, others and society</p>
<p>F.</p> <ul style="list-style-type: none"> <li>• act as a role model by being attentive and involved</li> </ul>	<p>F. interpersonal and communications skills</p>
<p>G.</p> <ul style="list-style-type: none"> <li>•</li> </ul>	<p>G. teamwork, and personal and group leadership skills</p>
<p>H.</p> <ul style="list-style-type: none"> <li>• assess the linguistic and literary accomplishments of ancient Romans</li> </ul>	<p>H. creativity and aesthetic appreciation</p>
<p>I.</p>	<p>I. the ability and desire for continuous learning</p>

**COURSE NUMBER AND TITLE: 14-201: Intermediate Latin II**

<b>Learning Outcomes</b> This is a sentence completion exercise.  <u>At the end of this course, the successful student will know and be able to:</u>	<b>Characteristics of a University of Windsor Graduate</b>  <u>A U of Windsor graduate will have the ability to demonstrate:</u>
<p>A.</p> <ul style="list-style-type: none"> <li>• Apply all the main aspects of Latin grammar and syntax as well as the principles underlying Latin poetry</li> <li>• apply English grammar proficiently and learn the roots and meanings of numerous English words which derive from Latin</li> </ul>	<p>A. the acquisition, application and integration of knowledge</p>
<p>B.</p> <ul style="list-style-type: none"> <li>• recognize how to use lexicons and grammars to help with issues of definition and syntax</li> </ul>	<p>B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>
<p>C.</p> <ul style="list-style-type: none"> <li>• parse complicated Latin word formations and scan dactylic hexameter verses</li> <li>• read with confidence both Latin prose and poetry</li> <li>• translate involved Latin sentences into English</li> <li>• decide which of the various possible meaning for any grammatical form is most likely the correct one in the given context</li> <li>• recognize the subtleties of meaning and use of English words derived from Latin based on their etymology</li> </ul>	<p>C. critical thinking and problem-solving skills</p>
<p>D.</p> <ul style="list-style-type: none"> <li>• read complex Latin sentences, without outside aids, paying attention to minor details</li> </ul>	<p>D. literacy and numeracy skills</p>
<p>E.</p>	<p>E. responsible behaviour to self, others and society</p>
<p>F.</p> <ul style="list-style-type: none"> <li>• act as a role model by being attentive and involved</li> </ul>	<p>F. interpersonal and communications skills</p>
<p>G.</p> <ul style="list-style-type: none"> <li>•</li> </ul>	<p>G. teamwork, and personal and group leadership skills</p>
<p>H.</p> <ul style="list-style-type: none"> <li>• assess the linguistic and literary accomplishments of ancient Romans</li> <li>• analyze samples of ancient Latin by a variety of authors, both in prose and poetry</li> </ul>	<p>H. creativity and aesthetic appreciation</p>
<p>I.</p> <ul style="list-style-type: none"> <li>•</li> </ul>	<p>I. the ability and desire for continuous learning</p>

**University of Windsor  
Program Development Committee**

**\*5.17 Special Topics in Psychology (46-606) – Learning Outcomes**

**Item for: Information**

<b>Learning Outcomes</b>	<b>Characteristics of a University of Windsor Graduate</b>
<p><i>This is a sentence completion exercise.</i></p> <p>At the end of the course, the successful student will know and be able to:</p>	<p>A U of Windsor graduate will have the ability to demonstrate</p>
<p>A. Describe the concepts and practices that underlie psychological theories and/or methods.</p>	<p>A. the acquisition, application and integration of knowledge</p>
<p>B. Conduct a critical literature review on a topic relevant to the psychological concepts under consideration.</p>	<p>B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>
<p>C. Summarize and provide a critique of the limitations and challenges of the field of psychology under consideration.</p>	<p>C. critical thinking and problem-solving skills</p>
<p>D. Compare and explain variations in the major perspective for the topic under consideration.</p>	<p>D. literacy and numeracy skills</p>
<p>E. Identify and provide possible resolutions for difficult or “tricky” ethical situations that may arise in real world applications of topics in this course.</p>	<p>E. responsible behaviour to self, others and society</p>
<p>F. Appropriately seek and incorporate feedback from the instructor in their final reports.</p>	<p>F. interpersonal and communications skills</p>
<p>G. Contribute to personal and professional development of other students in the class by offering constructive feedback on other student’s presentations.</p>	<p>G. teamwork, and personal and group leadership skills</p>
<p>H.</p>	<p>H. creativity and aesthetic appreciation</p>
<p>I.</p>	<p>I. the ability and desire for continuous learning</p>